# Catalog. 2015

All Models, Data and Prices at a Glance!

IP68 HD 1080p ONVIF

**CCTV Cameras, Communication Systems, Equipment and Accessories** for Hazardous Areas.

SAMCON
Prozessleittechnik GmbH

SAMCON
Prozessleittechnik GmbH

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## The Company

**SAMCON Prozessleittechnik GmbH** was founded in 1992 and is located in Lohra-Altenvers, near Marburg. The company is specialized in the development, production and sale of devices, software as well as engineering services in the area of process control engineering. The focus is on Camera and Communication Systems for hazardous areas. It currently has 18 regular and freelance employees. The general managers of the company are Helmut Seibert and Steffen Seibert.

Since 2008, the company has met the requirements for quality management specified by the Directive 94/9/EC (ATEX) and produces camera and communication systems for hazardous areas. In 2014, SAMCON extended their quality management system, now also comprising ISO 9001:2008 as well as IECEx QAR. Since 2007, SAMCON GmbH have been an Axis development partner and in 2013 this partnership was extended as both companies now jointly cooperate as Technology Partners.

SAMCON cameras are certified by the TÜV, the German Technical Inspection Authority. Whether simple explosion proof camera-monitor systems are required or complex CCTV systems have to be implemented - SAMCON always strive to offer the best solution to our customers. Samcon's most important objectives are high quality planning, well thought-out equipment technology, safety, and of course customer satisfaction.

### Camera and Communications Systems for hazardous areas.

In the area of automation technology, a tendency is noticeable that CCTV systems (Closed Circuit Television) extend and even replace classical sensor technology. With the digitalization of video streams the possibilities increase to effectively integrate them into existing process control systems and procedures. The requirement spectrum of CCTV systems in hazardous areas ranges from rather simple observations by the means of static passive video sources, to cameras disposing of a zoom function and intelligent evaluation units, to complex PTZ cameras such as dome camera systems.

Due to the constantly increasing demands which explosion proof cameras have to fulfil as well as our effort to realize and implement our customers' requirements, our current scope comprises:

- Development, manufacturing and direct distribution of explosion proof camera systems and the applicable components
- Compilation of technical concepts to realize CCTV systems in hazardous areas
- Planning and project implementation of CCTV systems in hazardous areas
- Planning and development of analog and digital signal processing and analytical systems

## Our Customers

### Chemical and Pharmaceutical Industry.

Hardly any field has been so strongly altered by automated technology like the chemical industry. Process values that were still processed in large part manually in the 1960s led the way to equipment with process control systems and central measuring stations of today. Our camera systems increase the automation level of chemical and pharmaceutical production plants.

### Explosion Proof Cameras - Onshore & Offshore.

Oil and gas are still important energy sources and are hard to replace, especially for mobile applications. The ExCam series, especially the stainless steel Models, are extremely robust: The weather resistant stainless steel casings have a rating of IP68 which means they are absolutely dust-tight and watertight during temporary submersion, making them ideally suited for all offshore uses.

### Explosion Proof Cameras for Refineries and Fuel Depots.

In most large refineries and fuel depot sites, process and safety monitoring requirements fit together seamlessly. Operating procedures are often only controlled and coordinated from a central control room. If information about what is happening on site is important it is possible to transfer the applicable information via camera technology to the measuring station.

### Cameras for Electronic and Mechanical Industries.

Cameras and optical sensors have long been an essential part of control systems in mechanical engineering. In general, two different fields of applications are distinguished: video surveillance and industrial image processing. In both types of application it is common to use cameras to confer at least some of the abilities of human sight on machines.

# ExCam® Series

## High Quality Cameras for Hazardous Areas - by SAMCON.EU

The **ExCam Series** consists of different video cameras that are approved for dust and gas explosion risk zones, as well as mining, in accordance with the EU Directive 94/9/EC (ATEX) and the IECEx Schema.
The ExCam Series is the **world´s smallest explosion proof camera system in its class**. The main advantage lies in the modular build up: various different housings and electronic parts make it easy to assemble explosion proof cameras that suit your particular needs. The **ExCam Series** consist of analogue cameras with varifocal lenses, motor-zoom cameras with infrared cut filter and digital network cameras with a resolution of more then 1920x1080 pixel (FullHD).

### Explosion Protection

The ExCam Series has been designed for use in hazardous areas and it is certified according to European regulations (ATEX) as well as international ones (IECEx). The cameras certification comprises ATEX group I (mining) with a low risk of mechanical threat as well as ATEX group II for zone 1, 2 as well as 21 and 22 including the explosion groups IIC / IIIC with a high risk of mechanical threat. In accordance with the requirements of the impact and free-fall tests (DIN EN 60079: 0 2012), the housings are suitable for fix and portable applications!

### Media Resistance and Sealings

Due to high-quality materials used for the ExCam IP135x it meets the requirements of a comprehensive media resistance list! It is also possible to freely select different stainless steel alloys to reflect the best execution for the application. Even a coating or powder coating of the housing is feasible to realize individual media resistance requirements. The particularly designed GYLON (PTFE) flat sealing does not only ensure the housing to be watertight (IP68) but also supports the resistance towards several chemicals. The extremely robust and scratch-proof as well as high-impact resistant borosilicate glass fits perfectly into the high-quality materials of the housing body.

### Mining

As one of the first flameproof camera protection systems, the ExCam IP135x series meets all mining requirements (environments susceptible of fire damps) and is certified according to ATEX/IECEx for equipment group I M2 (Mb). If the housing series is used in in mining environments with a low risk of mechanical damages it is even not necessary to equip the housing with an additional device in order to protect the borosilicate glass! As a result, the ExCam Series allows for the first time a usage of stationary as well as portable surveillance systems underground.

### Temperatures

Also with regard to the allowed ambient temperatures the ExCam Series sets new standards.
The temperature limits with integrated heater or equipped with an active cooling systems are -60° C and +75° C
Using active cooling, even high-end cameras can be used at high ambient temperatures!

# ExCam Comparison Table

SAMCON Prozessleittechnik GmbH

...all Models at one glance!

| | | Product | Model-Keys | Ex-Certification*1 | Prot.-Level | Enclosure Material*2 | $T_{min}$ $T_{max}$ *3 | Power Supply | Lens/ IR-Filter | Min. -Illu-mination | Angle of View | Signal *4 | Video-comp. / Resolution*5 | More Info |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analog CVBS Signal | | **ExCam** vario | T03-VA... T03-AL... | ATEX: Dust & Gas | IP67 | Alu-minum or Stainless Steel | -20° C +50° C | 12 VDC to 30 VDC 5,5 W | Varifocal/ YES | 0.15 lx | 74.2° (wide)-30° (tele) | CVBS | MJPEG H.264 720x576 | |
| | | **ExCam** mini-Zoom | T03-VA... | ATEX: Dust & Gas | IP67 | Stainless Steel | -20° C +50° C | 12 VDC to 30 VDC 2,5 W | 10 x Motor Zoom / NO | 1.5 lx | 46° (wide) - 4,6° (tele) | CVBS VISCA® | MJPEG H.264 720x576 | |
| | | **ExCam** nit-eZoom | T03-VA... | ATEX: Dust & Gas | IP67 | Stainless Steel | -20° C +50° C | 12 VDC to 30 VDC 6,5 W | 10 x Motor Zoom / YES | 0.0004 lx | 52° (wide) - 5,4° (tele) | CVBS VISCA® | MJPEG H.264 720x576 | |
| | | **ExCam** maxi-Zoom | T03-VA2... | ATEX: Dust & Gas | IP67 | Stainless Steel | -20° C +50° C | 12 VDC to 30 VDC 2,7 W | 18 x Motor Zoom / YES | 0.01 lx | 48° (wide) - 2,8° (tele) | CVBS VISCA® | MJPEG H.264 720x576 | |
| | | | | | | | | | | | | | | |
| TCP/IP Network Cameras | | **ExCam** IP | T03-VA... T03-AL... | ATEX: Dust & Gas | IP67 | Alu-minum or Stainless Steel | -5° C +50° C | PoE, IEEE 802.3af Class 1 3,8 W | Fix / NO | 1.0 lx | 80° (ePTZ) | TCP/IP RTSP HTTP... VAPIX® ONVIF® | MJPEG H.264 1280x800 | |
| | | **ExCam** IP1354 | T08-VA2.2... | ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining | IP68 | Stainless Steel | -60° C +40° C | PoE, IEEE 802.3af Class 3 7,2 W | Varifocal / YES | Color: 0.1 lx, F1.2 B/W: 0.02 lx, F1.2 | 100 ° (wide) - 34° (tele) | TCP/IP RTSP HTTP... VAPIX® ONVIF® | MJPEG H.264 1280x960 | |
| | | **ExCam** IP1355 | T08-VA2.2... | ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining | IP68 | Stainless Steel | -60° C +40° C | PoE, IEEE 802.3af Class 3 7,1 W | Varifocal / YES | Color: 0.2 lx, F1.2 B/W: 0.04 lx, F1.2 | 109° (wide) - 39° (tele) | TCP/IP RTSP HTTP... VAPIX® ONVIF® | MJPEG H.264 1920x1080 | |
| | | **ExCam** IP1357 | T08-VA2.2... | ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining | IP68 | Stainless Steel | -60° C +40° C | PoE, IEEE 802.3af Class 3 7,9 W | Varifocal / YES | Color: 0.2 lx, F1.2 B/W: 0.04 lx, F1.2 | 92° (wide) - 32° (tele) | TCP/IP RTSP HTTP... VAPIX® ONVIF® | MJPEG H.264 2592x1944 | |
| | | **ExCam** IPQ1755 | T08-VA2.2... | ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining | IP68 | Stainless Steel | -60° C +40° C | PoE, IEEE 802.3af Class 3 11 W | 10xMotor Zoom, 12x Digital / YES | Color: 2 lx at 30 IRE, F1.8 B/W: 0.02 lx, at 30 IRE, F1.8 | 48,1° (wide) - 5,1° (tele) | TCP/IP RTSP HTTP... VAPIX® ONVIF® | MJPEG H.264 1920x1080 | |

***1: Ex Certification (see Model Key):**

ATEX Marking & Certification:

Gas: II 2G Ex d IIC T6 Gb
Dust: II 2D Ex t IIIC T80° C Db IP68
Mining: I M2 Ex d I T6 Mb

IECEx Marking & Certification:

Gas: Ex d IIC T6 Gb
Dust: Ex t IIIC T80° C Db IP68
Mining: Ex d I T6 Mb

***2: Housing Materials:**

Aluminum or Stainless Steel 1.4301 / 1.4401 / 1.4404

***3: Ambient Temperature:**
Please see Model key.

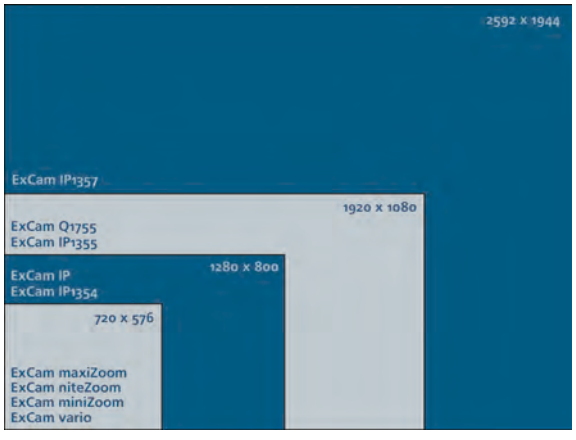
***4:Video signal:**

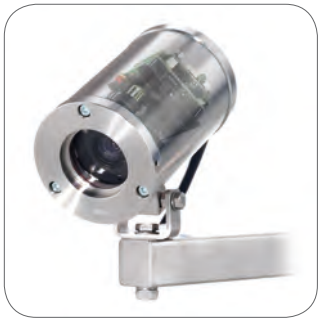
PAL CVBS as standard
NTSC Models on demand

***6: Network Video Features:**

All values for analog devices are based on the encoding of the analog camera with an Axis Q7401 video encoder.

**Overview Graphical Resolutions:**





**ExCam vario**
in a stainless steel housing

# ExCam vario

The **ExCam vario** is a camera approved for hazardous areas (gas and dust) in accordance with Directive 94/9/EC (ATEX).
The **ExCam vario** is the world's smallest explosion-proof varifocal camera of its class. Despite its very compact dimensions, it features DSP, automatic shutter control, minimal illumination of 0.15 Lux, AGC-Turbo, S/W, fast lens with F1.2/3.8-9.5 mm, automatic white balance and IR cut filter.

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| ExCam vario<br>T03-AL-B-005-X-L<br> | | Varifocal camera in an aluminum housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 0.15 lx<br>Angle: 74.2° (wide) to 30° (tele)<br>Self adjusting DC iris<br>Day/night function within IR cut filter<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: -20° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam vario<br>T03-VA-B-005-X-L<br> | | Varifocal camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 0.15 lx<br>Angle: 74.2° (wide) to 30° (tele)<br>Self adjusting DC iris<br>Day/night function within IR cut filter<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: -20° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam vario<br>T03-XX-C-XXX-X-L | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| ExCam vario „long range"<br>T03-XX-X-XXX-X-L | | Option „long range" (surcharge):<br>Version with passive two-wire transmitter.<br>Transmission range of up to 500 m.<br>Attention: Can only be used in combination with a VZT-21B/TB two-wire receiver |
| ExCam vario „K2"<br>T03-VA-X-XXX-X-L | | Option „K2" (surcharge):<br>Version with 90° angle flange for VA housing.<br>The cable gland is laterally introduced into the flange. |
| ExCam vario „pin free"<br>T03-VA-X-XXX-X-L | | Option „pin free" (surcharge):<br>Version with an even VA housing without pin attachment.<br>Suitable for flange fixation as well as hose clips. |
| ExCam vario „more Power"<br>T08-VA1.2.K1.BOR-XXX-X-X | | You need an ExCam® vario with IECEx certification?<br>With an approval for mining or with extended temperature range?<br>We are currently working on an upgrade.<br>Please contact us! |

**ExCam miniZoom**
in a stainless steel housing

# ExCam miniZoom

The **ExCam miniZoom** is a zoom camera approved for dust and gas explosion risk zones in accordance with EU Directive 94/9/EC (ATEX).
The ExCam miniZoom is the **world's smallest explosion-proof zoom camera** of its class. Despite the camera's compact dimensions, it has a 10x motorised zoom lens, allowing it to be optimally adapted to the specific angle and lighting situation. .

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| ExCam miniZoom<br>T03-VA-B-005-X-N<br> | | Camera with motor zoom in a stainless steel housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 1.5 lx<br>Interface: VISCA®@RS422<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: 0° C < $T_{amb}$ < +50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam miniZoom<br>T03-VA-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| ExCam miniZoom<br>T03-VA-X-XXX-X-L | | Option housing heating (surcharge):<br>Equipped with a self regulating heater for housing.<br>Ambient temperature limit: -20° C < $T_{amb}$ < 50° C |
| ExCam miniZoom „K2"<br>T03-VA-X-XXX-X-X | | Option „K2" (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |
| ExCam miniZoom „pin free"<br>T03-VA-X-XXX-X-X | | Option „pin free" (surcharge):<br>Version with an even VA housing without pin attachment.<br>Suitable for flange fixation as well as hose clips. |
| ExCam miniZoom „more Power"<br>T08-VA1.2.K1.BOR-XXX-X-X | | You need an ExCam® miniZoom with IECEx certification?<br>With an approval for mining or with extended temperature range?<br>We are currently working on an upgrade.<br>Please contact us! |

# ExCam niteZoom

**ExCam niteZoom**
in a stainless steel housing

The **ExCam niteZoom** is a zoom camera certified according to Directive 94/9/EG (ATEX). With its 1/3" Super HAD CCD II sensor and the IR cut filter it is one of the **most light sensitive cameras of its class**. As a result the **ExCam niteZoom** delivers high resolution pictures even at an illumination level of only 0.0004 lx. Despite its compact dimensions, it has a 10x motorized zoom lens, allowing it to be optimally adapted to a specific angle and lighting situation.

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| ExCam niteZoom<br>T03-VA-B-005-X-N<br> | Ex IP67 0°C +50°C | Camera with motor zoom in a stainless steel housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 1/4 s, 1/3 s mode & ICR on: 0.0004 lx<br>Interface: VISCA@RS422<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: 0° C < $T_{amb}$ < +50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam niteZoom<br>T03-VA-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| ExCam niteZoom<br>T03-VA-X-XXX-X-L | -20°C | Option housing heating (surcharge):<br>Equipped with a self regulating heater for housing.<br>Ambient temperature limit: -20° C < $T_{amb}$ < +50° C |
| ExCam niteZoom „K2"<br>T03-VA-X-XXX-X-X | | Option „K2" (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |
| ExCam niteZoom „pin free"<br>T03-VA-X-XXX-X-X | | Option „pin free" (surcharge):<br>Version with an even VA housing without pin attachment.<br>Suitable for flange fixation as well as hose clips. |
| ExCam niteZoom „more Power"<br>T08-VA1.2.K1.BOR-XXX-X-X | IECEx Mining IP68 -60 °C | You need an ExCam® niteZoom with IECEx certification?<br>With an approval for mining or with extended temperature range?<br>We are currently working on an upgrade.<br>Please contact us! |

**ExCam IP**
in Stainless Steel

# ExCam IP

The **ExCam IP** is a network camera approved for dust and gas explosion risk zones in accordance with EU Directive 94/9/EC (ATEX). Video streams and control signals are directly available within the network and due to **Power over Ethernet (PoE)** it is possible to have only one cable for transmitting data as well as power! The ExCam IP delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1280x800 pixels.

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| ExCam IP<br>T03-AL-B-005-X-N<br> | Ex IP67<br>-5°C +50°C<br>HD 720p ONVIF | Network camera in an aluminum housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 1.0 lx<br>Horizontal angle: 80°<br>Video compression: H.264, MJPEG<br>Resolution: 1280 x 800 to 160 x 90<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: -5° C < $T_{amb}$ < +50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IP<br>T03-VA-B-005-X-N<br> | Ex IP67<br>-5°C +50°C<br>HD 720p ONVIF | Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX).<br>Minimal illumination: 1.0 lx<br>Horizontal angle: 80°<br>Video compression: H.264, MJPEG<br>Resolution: 1280 x 800 to 160 x 90<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Ambient temperature limit: -5° C < $T_{amb}$ < +50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IP<br>T03-XX-C-XXX-X-N | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop.<br>In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| ExCam IP „K2“<br>T03-VA-X-XXX-X-X | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |
| ExCam IP „pin free“<br>T03-VA-X-XXX-X-X | | Option „pin free“ (surcharge):<br>Version with an even VA housing without pin attachment.<br>Suitable for flange fixation as well as hose clips. |
| ExCam IP „more Power“<br>T08-VA1.2.K1.BOR-XXX-X-X | IECEx Mining<br>IP68 -60 °C | You need an ExCam® IP with IECEx certification?<br>With an approval for mining or with extended temperature range?<br>We are currently working on an upgrade.<br>Please contact us! |

**ExCam IP1354**
in Stainless Steel

# ExCam IP1354

The **ExCam IP1354** is a network camera, approved according to Directive 94/9/EG (ATEX) and IECEx. Due to **Power over Ethernet (PoE),** it is possible to have only one cable for transmitting data as well as power! The ExCam IP1354 delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1280x960 pixels. The camera disposes of the newest **Lightfinder® Technology** and is hence able to deliver color pictures at an illumination level of less than 0.18 lx.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✓ |

| Product / Model | | Description |
|---|---|---|
| new! ExCam IP1354<br>T08-VA2.2.K1.BOR-B-005-X-N<br> | | Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX) and IECEx.<br>Power supply: PoE, IEEE 802.3af Class 3 (7.2 W)<br>Minimal illumination: Color: 0.1 lx; black/white 0.02 lx, F1.2<br>Horizontal angle: 100° - 34° (for standard lens)<br>Video compression: H.264 & Motion JPEG<br>Resolution: 1280x960 (approx. 1.3 MP) to 160x90<br>Lens mount type: CS Mount<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68<br>Explosion protection (mining): Ex I M2 Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IP1354<br>T08-VA2.2.X.BOR-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop.<br>In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| new! ExCam IP1354<br>T08-VA2.2.K1.BOR-X-XXX-X-L | | Option: Housing heating (surcharge):<br>Equipped with a self regulating heater for housing suitable for low temperature ranges:<br>Ambient temperature: -30° C < $T_{amb}$ < +40° C |
| new! ExCam IP1354<br>T08-VA2.2.K1.BOR-X-XXX-X-LL | | Option: Housing heating for arctic temperatures (surcharge):<br>Equipped with a self regulating heater for housing suitable for extremely low temperature ranges:<br>Ambient temperature: -60° C < $T_{amb}$ < +40° C |
| ExCam IP1354 „K2“<br>T08-VA2.2.K2.BOR-X-XXX-X-N<br> | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |

**ExCam IP1355**
in Stainless Steel

# ExCam IP1355

The **ExCam IP1355** is a network camera, approved according to Directive 94/9/EG (ATEX) and IECEx. The video streams and control signals are therefore directly available within the network.
Due to **Power over Ethernet (PoE)** kit is possible to have only one cable for transmitting data as well as power! The ExCam IP1355 delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1920x1080 pixels.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✓ |

| Product / Model | | Description |
|---|---|---|
| new! ExCam IP1355<br>T08-VA2.2.K1.BOR-B-005-X-N<br> | | Network camera in a stainless steel housing in accordance with<br>Directive 94/9/EC (ATEX) and IECEx<br>PoE, IEEE 802.3af Class 3 (7,1 W)<br>Minimal illumination: Color: 0.2 lux, black/white: 0.04 lux, F1,2<br>Horizontal angle: 109° - 39° (HD, 16/9)<br>Video compression: H.264 & Motion JPEG<br>Resolution: 1920 x 1080 (approx. 2 MP) to 160 x 90<br>Lens mount type: CS Mount<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68<br>Explosion protection (mining): Ex I M2 Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IP1355<br>T08-VA2.2.X.BOR-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| new! ExCam IP1355<br>T08-VA2.2.K1.BOR-X-XXX-X-L | | Option: Housing heating (surcharge):<br>Equipped with a self regulating heater for housing suitable for low temperature ranges:<br>Ambient temperature: -30° C < $T_{amb}$ < +40° C |
| new! ExCam IP1355<br>T08-VA2.2.K1.BOR-X-XXX-X-LL | | Option: Housing heating for arctic temperatures (surcharge):<br>Equipped with a self regulating heater for housing suitable for extremely low temperature ranges:<br>Ambient temperature: -60° C < $T_{amb}$ < +40° C |
| ExCam IP1355 „K2“<br>T08-VA2.2.K2.BOR-X-XXX-X-N<br> | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |

# ExCam IP1357

**ExCam IP1357**
in a stainless steel

The **ExCam IP1357** is a network camera, approved according to Directive 94/9/EG (ATEX) and IECEx. The video streams and control signals are therefore directly available within the network.
Due to **Power over Ethernet (PoE)** is possible to have only one cable for transmitting data as well as power! The ExCam IP1357 delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 2592x1944 pixels.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✓ |

| Product / Model | | Description |
|---|---|---|
| new! ExCam IP1357<br>T08-VA2.2.K1.BOR-B-005-X-N<br> | | Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX) and IECEx<br>Power supply: PoE, IEEE 802.3af Class 3 (7.9 W)<br>Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1.2<br>Horizontal angle: 92° - 32° (HD, 16/9)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 2592 x 1944 (approx. 5 MP) to 160 x 90<br>Lens mount type: CS Mount<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68<br>Explosion protection (mining): Ex I M2 Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IP1357<br>T08-VA2.2.X.BOR-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| new! ExCam IP1357<br>T08-VA2.2.K1.BOR-X-XXX-X-L | | Option: Housing heating (surcharge):<br>Equipped with a self regulating heater for housing suitable for low temperature ranges:<br>Ambient temperature: -30° C < $T_{amb}$ < +40° C |
| new! ExCam IP1357<br>T08-VA2.2.K1.BOR-X-XXX-X-LL | | Option: Housing heating for arctic temperatures (surcharge):<br>Equipped with a self regulating heater for housing suitable for extremely low temperature ranges:<br>Ambient temperature: -60° C < $T_{amb}$ < +40° C |
| ExCam IP1357 „K2“<br>T08-VA2.2.K2.BOR-X-XXX-X-N<br> | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |

**ExCam IPQ1755**
in Stainless Steel

# ExCam IPQ1755

FullHD meets motor zoom! The **ExCam IPQ1755** is a network camera with motor zoom, approved according to Directive 94/9/EG (ATEX) and IECEx. Due to **Power over Ethernet (PoE)** is possible to have only one cable for transmitting data as well as power! The ExCam IPQ1755 delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1920x1080 pixels.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✓ |

| Product / Model | | Description |
|---|---|---|
| new! ExCam IPQ1755<br>T08-VA2.2.K1.BOR-B-005-X-N<br> | Ex IECEx IP68 -10°C +40°C ONVIF HD 1080p | Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX) and IECEx<br>Power supply: PoE, IEEE 802.3af Class 3 (11.0 W)<br>Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1,2<br>Horizontal angle: 48.1° - 5.1° (HD, 16/9) (motor zoom)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 1920 x 1080 to 160 x 90<br>Explosion protection (gas): Ex II 2G Ex d IIB T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68<br>Explosion protection (mining): Ex I M2 Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ExCam IPQ1755<br>T08-VA2.2.X.BOR-C-XXX-X-X | | Option IIC (surcharge):<br>Certified after IIC for atmospheres containing hydrogen, carbon disulphide and acetylene. Includes cable gland with integrated pressure stop. In accordance with DIN EN 60079-14.<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb |
| new! ExCam IPQ1755<br>T08-VA2.2.K1.BOR-X-XXX-X-L | -30°C | Option: Housing heating (surcharge):<br>Equipped with a self regulating heater for housing suitable for low temperature ranges:<br>Ambient temperature: -30° C < $T_{amb}$ < +40° C |
| new! ExCam IPQ1755<br>T08-VA2.2.K1.BOR-X-XXX-X-LL | -60 °C | Option: Housing heating for arctic temperatures (surcharge):<br>Equipped with a self regulating heater for housing suitable for extremely low temperature ranges:<br>Ambient temperature: -60° C < $T_{amb}$ < +40° C |
| ExCam IPQ1755 „K2“<br>T08-VA2.2.K2.BOR-X-XXX-X-N<br> | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange.<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |

**ToughCam IP and IP1357**
in stainless steel (VA & VA2.2)

# ToughCam Series

Our **ToughCam Series** comprises mechanically process as well as security cameras which are extremely robust. All **ToughCams** meet the same high quality standards as our ExCams and are therefore perfect for even the roughest industrial conditions. The stainless steel housing in combination with borosilicate glass and high-end sealings make our **ToughCams** resistant to nearly all media; withstanding even the highest mechanical demands.

| Group II (Gas & Dust) | - | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | X | X | X | X | X |

| Group I (Mining) | - | |
|---|---|---|
| Category | Ma | Mb |
| Application | X | X |

| Product / Model | | Description |
|---|---|---|
| ToughCam vario<br>T10-AL-005-X-L<br> | IP67<br>-20°C<br>+50°C | Varifocal camera in an aluminum housing (IP67).<br>Minimal illumination: 0.15 lx<br>Angle: 74.2° (wide) to 30° (tele)<br>Self adjusting DC iris<br>Day/night function within IR cut filter<br>Ambient temperature limit: -20° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ToughCam vario<br>T10-VA-005-X-L<br> | IP67<br>-20°C<br>+50°C | Varifocal camera in a stainless steel housing (IP67).<br>Minimal illumination: 0.15 lx<br>Angle: 74.2° (wide) to 30° (tele)<br>Self adjusting DC iris<br>Day/night function within IR cut filter<br>Ambient temperature limit: -20° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ToughCam miniZoom<br>T10-VA-005-X-N<br> | IP67<br>0°C<br>+50°C | Camera with motor zoom in a stainless steel housing (IP67)<br>Minimal illumination: 1.5 lx<br>Interface: VISCA@RS232 or VISCA@RS422<br>Ambient temperature limit: 0° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ToughCam niteZoom<br>T10-VA-005-X-N<br> | IP67<br>0°C<br>+50°C | Camera with motor zoom in a stainless steel housing (IP67)<br>Minimal illumination: 1/4 s, 1/3 s Mode & ICR on: 0.0004 lx<br>Interface: VISCA@RS422<br>Ambient temperature limit: 0° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ToughCam IP<br>T10-AL-005-X-N<br> | IP67<br>-5°C<br>+50°C<br>HD 720p<br>Onvif | Network camera in an aluminum housing (IP67)<br>Minimal illumination: 1.0 lx<br>Horizontal angle: 80°<br>Video compression: H.264, MJPEG<br>Resolution: 1280 x 800 to 160 x 90<br>Ambient temperature limit: -5° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |
| ToughCam IP<br>T10-VA-005-X-N<br> | IP67<br>-5°C<br>+50°C<br>HD 720p<br>Onvif | Network camera in a stainless steel housing (IP67)<br>Minimal illumination: 1.0 lx<br>Horizontal angle: 80°<br>Video compression: H.264, MJPEG<br>Resolution: 1280 x 800 to 160 x 90<br>Ambient temperature limit: -5° C < $T_{amb}$ < 50° C<br>See data sheet for technical data - www.samcon.eu<br>Product group: A, tariff number: 8525 8019 |

## ToughCam Series

| Product / Model | | Description |
|---|---|---|
| new! ToughCam IP1354<br>T10-VA2.2.K1.BOR-005-X-N<br> | IP68<br>-10°C +40°C<br>ONVIF HD 720p | Network camera in a stainless steel housing<br>Power supply: PoE, IEEE 802.3af Class 3 (7.2 W)<br>Minimal illumination: Color: 0.1 lx, black/white: 0.02 lx, F1.2<br>Horizontal angle: 100° - 34° (at standard lense)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 1280x960 (approx. 1.3 MP) to160x90<br>Lens mount type: CS Mount<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>Product group: A, tariff number: 8525 8019 |
| new! ToughCam IP1355<br>T10-VA2.2.K1.BOR-005-X-N<br> | IP68<br>-10°C +40°C<br>ONVIF HD 1080p | Network camera in a stainless steel housing<br>Power supply: PoE, IEEE 802.3af Class 3 (7.1 W)<br>Minimal illumination: Color: 0.2 lx, black/white: 0,04 lx, F1.2<br>Horizontal angle: 109° - 39° (HD, 16/9)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 1920 x 1080 (ab. 2 Megapixel) to 160 x 90<br>Lens mount type: CS Mount<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>Product group: A, tariff number: 8525 8019 |
| new! ToughCam IP1357<br>T10-VA2.2.K1.BOR-005-X-N<br> | IP68<br>-10°C +40°C<br>ONVIF HD 1080p | Network camera in a stainless steel housing<br>Power supply: PoE, IEEE 802.3af Class 3 (7.9 W)<br>Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1.2<br>Horizontal angle: 92° - 32° (HD, 16/9)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 2592 x 1944 (approx. 5 MP) to 160 x 90<br>Lens mount type: CS Mount<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>Product group: A, tariff number: 8525 8019 |
| new! ToughCam IPQ1755<br>T10-VA2.2.K1.BOR-005-X-N<br> | IP68<br>-10°C +40°C<br>ONVIF HD 1080p | Network camera in a stainless steel housing<br>Power supply: PoE, IEEE 802.3af Class 3 (11.0 W)<br>Minimal illumination: Color: 0.2 lux, black/white: 0.04 lux, F1.2<br>Horizontal angle: 48.1° - 5.1° (HD, 16/9) (motor zoom)<br>Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG<br>Resolution: 1920 x 1080 to 160 x 90<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature limit: -10° C < $T_{amb}$ < +40° C<br>Product group: A, tariff number: 8525 8019 |

## Some ToughCam Options

| Product / Model | | Description |
|---|---|---|
| Option heating for housing<br>(Only available for certain Models!) | -30°C | Option: Housing heating (surcharge):<br>Equipped with a self regulating heater for housing suitable for low temperature ranges:<br>Ambient temperature: -30° C < $T_{amb}$ < +40° C |
| Option heating for housing<br>(Only available for certain Models!) | -60 °C | Option: Housing heating for arctic temperatures (surcharge):<br>Equipped with a self regulating heater for housing suitable for extremely low temperature ranges:<br>Ambient temperature: -60° C < $T_{amb}$ < +40° C |
| Option „K2“<br>(Only available for certain Models!)<br> | | Option „K2“ (surcharge):<br>Option with 90° angle flange.<br>The cable gland is laterally introduced into the flange. |
| Option „pin free“<br>(Only available for certain Models!) | | Option „pin free“ (surcharge):<br>Version with an even VA housing without pin attachment.<br>Suitable for flange fixation as well as hose clips |

# ExCam & ToughCam accessories

All accessories have been thoroughly tested with regard to their use in industrial zones, reflecting the highest quality standards.
Accessories for explosion risk zones are in accordance with the current norms; DIN EN 60079-0,-14, regulation 94/9/EG as well as the norms for the applicable explosion protection.

| Product / Model | Description |
|---|---|
| Wall bracket<br>WMB-S*-...<br> <br>*S = Short Picture shows WMB-S-VA | Wall bracket short (stainless steel)<br>Manual pan angle: 360°, manual tilt angle: 90°<br>Includes hinge and mounting accessories in accordance with housing identity code:<br>WMB-S-AL: for T03-AL..., WMB-S-VA: for T03-VA...<br>WMB-S-VA2: for T03-VA2, WMB-S-VAx.x: for T08-VAx.x<br>Product group: A, tariff number: 8529 9092 |
| new!<br>Wall bracket<br>WMB-L*-...<br> <br>*L = Long Picture shows WMB-S-VA | Wall bracket long (stainless steel)<br>Manual pan angle: 360°, manual tilt angle: 90°<br>Includes hinge and mounting accessories in accordance with housing identity code:<br>WMB-L-AL: for T03-AL..., WMB-L-VA: for T03-VA...<br>WMB-L-VA2: for T03-VA2, WMB-L-VAx.x: for T08-VAx.x<br>Product group: A, tariff number: 8529 9092 |
| Twin-Adapter<br>WMB-x*TA-...-...<br> <br>*x = S (Short) or L (Long) Picture shows WMB-STA-VA-VA | Twin Adapter (stainless steel)<br>Manual pan angle: 360°, manual tilt angle: 90°<br>Includes hinge and mounting accessories for left and right side in accordance with housing identity code.(without wall bracket):<br>Example:<br>WMB-XTA-VA-VA : Left and right for housing „VA“<br>Product group: A, tariff number: 8529 9092 |
| Hood<br>WPR-AL & WPR-VA<br> | Hood (stainless steel)<br>Includes hinge and mounting accessories for housing:<br>WPR-AL: for T03-AL, WPR-VA: for T03-VA<br>WPR-VA2: for T03-VA2, WPR-VA2.2: for T08-VA2.2<br>Product group: A, tariff number: 8529 9092 |
| Hood<br>WPR-VA2.x & WPR-VA1.x<br> | Hood (stainless steel)<br>The weather protection hoods for the ExCam T08 series dispose of fixing bores with a spacing of 5 mm in order to allow adjusting the hood's position to perfectly meet the selected angle of view.<br>Includes hinge and mounting accessories for housing:<br>WPR-VA1.x: for T08-VA1.x, WPR-VA2.x: for T08-VA2.x<br>Product group: A, tariff number: 8529 9092 |
| Hinge attachment<br>SCH-...<br> | Hinge attachment „SCH“<br>Easy mounting on round sight glasses.<br>In accordance with DIN 28120/28121 (or similar).<br>Includes mounting accessories for housing:<br>SCH-AL: for T03-AL, SCH-VA: for T03-VA<br>SCH-VA2: for T03-VA2, SCH-VA1.x: for T08-VA1.x<br>SCH-VA2.x: for T08-VA2.x...<br>Product group: A, tariff number: 8529 9092 |
| Thermo Isolator<br>THERM-VA<br> | Thermo isolator for flanging the T03-VA... and T08-VA1.x...series onto hot sight glasses or to avoid incidences of extraneous light.<br>Temperature range: -45° C to +100° C<br>Durability: Weatherproof, ozone proof, non-ageing, acid resistant, alkali resistant<br>Characteristics: extremely flame resistant, abrasion and impact resistant.<br>Electrically puncture-proof<br>Product group: A, tariff number: 8529 9092 |

**Hytec DTR120ZEXPEVIWP**
in a stainless steel

# Ex Dome Cameras

The Hytec DTR120ZEXPEVIWP is a dome camera approved for gas explosion risk zones in accordance with EU Directive 94/9/EC (ATEX). The dome camera is mechanically very well manufactured and in comparison with classical PTZ systems an extreme lightweight. It comes with 5 m cable and is 100% compatible with our ExCam® Series.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| Hytec<br>DTR120ZEXPEVIWP<br> | | Ex-Dome camera in a stainless steel housing (analog)<br>Housing: L = 260 mm, Dmax = 155 mm,<br>Weight = 8 kg, protection level: IP 68 (5 bar)<br>Explosion protection: Ex d IIC T6<br>Temperature range: -20 to +55 ° C<br>18 x analog zoom, 1/4"CCD image sensor<br>Sensitivity: 0.7 lx, 0.01 lx without IR filter<br>Control interface: PELCO-D@RS485<br>Cable outlet with certified cable gland<br>Delivery includes 5 m cable<br>See data sheet for technical data - www.samcon.eu<br>Product group: C |
| Hytec<br>DTR120ZEXPEIPWP<br> | | Ex-IP-Dome camera in a stainless steel housing (digital)<br>Housing: L = 260 mm, Dmax = 155 mm<br>Weight = 8 kg, protection level: IP 68 (5 bar)<br>Explosion protection: Ex d IIC T6<br>Temperature range: -20 to +55 ° C<br>Video compression: Motion JPEG and MPEG4<br>Resolution: 768 x 576 to 176 x 144 (PAL)<br>Live view access via webbrowser, pan/tilt commands and pre-settings.<br>Picture rotation and overlapp feasibility (time, date, text)<br>Cable outlet with certified cable gland<br>Delivery includes 5 m cable<br>Product group: C |
| new!<br>Further Models<br>upon request<br> | | Further Ex dome cameras upon request |

**AmEx PTZ System**
in stainless steel

# AmEx PTZ System

The AMEX PTZ system is an explosion protected stainless steel PTZ positioning system. It is certified and particularly designed and developed to meet the strict requirements of equipment, used in explosion risk areas at which flammable gases and powders can be present. The system offers an extraordinary performance for the observation of critical processes in explosion risk zones and is therefore the perfect choice for a video surveillance in the chemical as well as in the oil and gas industry.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| AmEx PTZ<br>MPX-X-PVW000A-005-X<br> | | PTZ camera in a stainless steel housing according to<br>Directive 94/9/EC (ATEX) and IECEx<br>Explosion protection (gas): Ex d IIC T6 Ta -40° C to 60° C Gb<br>Explosion protection (dust): Ex tb IIIC T85° C Ta -40° C to 60° C Db<br>Protection level: IP 66 (IEC / EN 60529)<br>Material: Electropolished stainless steel AISI 316L<br>Pan/Tilt speed: 0.1 ° -100° / s<br>Tilt: -90° / +90°<br>Day / night function<br>Analog zoom factor: 36x<br>Control protocol: Pelco-D@485 and others (q.v. data sheet)<br>All required cable glands are included.<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| AmEx PTZ<br>MPX-T2-PAW0000A-005-X<br> | | PTZ camera a stainless steel housing with analog and IR camera<br>according to Directive 94/9/EG (ATEX) and IECEx<br>Explosion protection (gas): Ex d IIC T6 Ta -40° C to 60° C Gb<br>Explosion protection (dust): Ex tb IIIC T85° C Ta -40° C to 60° C Db<br>Protection level: IP 66 (IEC / EN 60529)<br>Material: Electropolished stainless steel AISI 316L<br>Pan/Tilt speed: 0.1 ° - 100° / s<br>Tilt: -90° / +90°<br>Day / night function<br>Analog zoom factor: 36x<br>Control protocol: Pelco-D@485 and others (q.v. data sheet)<br>All required cable glands are included.<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| Further Models upon request | | Further Models upon request |
| new!<br>AmEx - MPXWBA<br> | | Wall Mount Bracket<br>Electropolished AISI 316L stainless steel<br>Load rating: 40 kg<br>To be combined with the following modules:<br>- AmEx - MPXCW<br>- AmEx - MPXCOL<br>Product group: A |
| new!<br>AmEx - MPXWBTA<br> | | Mounting attachment for rails and ceilings<br>Electropolished AISI 316L stainless steel<br>Load rating: 40 kg<br>Dimensions: Ø 238 mm<br>Product group: A |
| new!<br>AmEx - MPXCOL<br> | | Pole mount adapter<br>Electropolished AISI 316L stainless steel<br>Suitable for pole diameters of 110 -150 mm<br>Load capacity: 50 kg<br>Suitable for AmEx - MPXWBA wall mount bracket<br>Product group: A |

## AmEx PTZ System

| Product / Model | | Description |
|---|---|---|
| new! AmEx - MPXCW | | Corner mount adapter-Adapter<br>Electropolished AISI 316L stainless steel<br>Load capacity: 50 kg<br>Suitable for AmEx - MPXWBA wall mount bracket<br>Product group: A |
| new! AmEx - WASEX | Ex | Washer pump with explosion-proof solenoid valve<br>Enclosure made of stainless steel AISI 316L<br>Delivery height: Up to 20 m<br>Different loading modes<br>Power supply: 24 VAC/DC<br>Maximum power intake: 20 W<br>Explosion protection (gas): Ex d IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T130° C Db<br>Product group: A |
| Further Models and accessories upon request | | Further Models upon request |

**AXIS Q6045-S 50HZ**
in stainless steel housing

# Dome camera systems

The **AXIS Q6045-S** is a high-speed surveillance camera in a pressurized, seawater resistant stainless steel housing. The robust camera offers 360° pan as well as 90° tilt possibility and due to HDTV 1080p and a 20 x optical zoom with auto focus it delivers extremely detailed zoom views.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | X | X | X | X | X |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | X | X |

| Product / Model | | Description |
|---|---|---|
| new! AXIS Q6045-S 50HZ | IP66 IP67 IP69K -30°C +50°C ONVIF HD 1080p | The AXIS Q6045-S is a high-speed surveillance camera in a pressurized, seawater resistant stainless steel housing for safe areas.<br>Resolution: HD 1080p<br>System: True Day&Night<br>Image sensor: 1/3" Progressive Scan CMOS-Sensor<br>Video compression: H.264, M-JPEG<br>Resolution max.: 1920x1080<br>Frame rate: 25 fps<br>IR cut filter: Switchable<br>Sensitivity: 0.6 Lux<br>Lens: Zoom<br>Slewing range: 360°<br>Speed: 450°/Sec.<br>Alarm input: 2<br>Internal storage: SD card, SDHC card, SDXC card<br>Mounting options: Wall mount, ceiling mount<br>Power supply: 12VDC<br>Tamb: -30° C to +50° C<br>Protection level: IP66, IP67, IP69K<br>Certification: CE, MIL-STD-810G 509.5<br>Product group: C |
| Further Models upon request | | Further Models, e.g. for indoor applications, upon request. |
| new! AXIS T91C61 | | Wall mounting arm for Axis Q60-S series,<br>Including AXIS T94S01D Pendant Kit,<br>Material: Stainless steel<br>Product group: C |
| new! AXIS T91C67 | | AXIS T91C67 Mast mounting arm for AXIS T91C61<br>Material: Stainless steel<br>Product group: C |
| Further accessories upon request | | Further accessories upon request |

**AmNEX PTZ**
in Stainless Steel

# AmNEx PTZ system

The AmNEX PTZ system is very robust against extreme environmental conditions, it is very low maintenance and resistant to corrosion.
This precision is reached due the maximum care during the manufacturing processes as well as to the quality of the passivated and electropolished AISI 316L stainless steel. Included in the delivery scope is a wiper.

| Group II (Gas & Dust) | ATEX / IECEx | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | X | X | X | X | X |

| Group I (Mining) | ATEX / IECEx | |
|---|---|---|
| Category | Ma | Mb |
| Application | X | X |

| Product / Model | | Description |
|---|---|---|
| new! AmNEx PTZ<br>NXPTZ-X-PVW000A-005-X<br> | IP66<br>-40 °C<br>+60°C | PTZ camera in a stainless steel housing for safe areas<br>Material: electropolished stainless steel AISI 316L<br>Pan/Tilt speed: 0.1°/s - 100°/s<br>Tilt: -90° / +90°<br>Day / night function<br>Analog zoom factor: 36x<br>Protocol: Pelco-D@485 and others (q.v. data sheet)<br>All required cable connections included.<br>See data sheet for technical data - www.samcon.eu<br>Protection level: IP66<br>True Progressive Scan<br>High resolution: Up to 550 TV lines<br>Image stabilizer of the latest generation (mode stable zoom)<br>Day/Night (Auto ICR: Automatic removal of the IR filter)<br>Pre installed wiper<br>Operating temperature: -40° C / +60° C<br>Product group: C |
| Further Models<br>upon request | | Further Models<br>upon request |
| new! AmNEx - MPXWBA<br> | | Wall Mount Bracket<br>Electropolished AISI 316L stainless steel<br>Load rating: 40 kg<br>To be combined with the following modules:<br>- AmNEx - MPXCW<br>- AmEx - MPXCOL<br>Product group: A |
| new! AmNEx - MPXWBTA<br> | | Mounting attachment for rails and ceilings<br>Electropolished AISI 316L stainless steel<br>Load rating: 40 kg<br>Dimensions: Ø 238 mm<br>Product group: A |
| new! AmNEx - MPXCOL<br> | | Pole mount adapter<br>Electropolished AISI 316L stainless steel<br>Suitable for pole diameters of 110 - 150 mm<br>Load capacity: 50 kg<br>Suitable for AmNEx - MPXWBA wall mount bracket<br>Product group: A |
| new! AmEx - MPXCW<br> | | Corner mount adapter-Adapter<br>Electropolished AISI 316L stainless steel<br>Load capacity: 50 kg<br>Suitable for AmNEx - MPXWBA wall mount bracket<br>Product group: A |

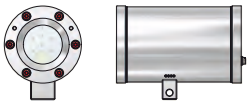
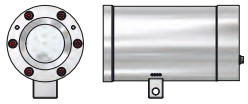
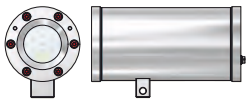
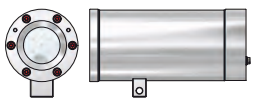
**To7 Housing series**
with size comparison

# Camera Housing (Ex)

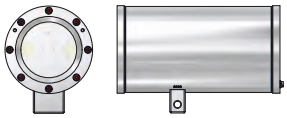
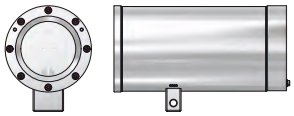
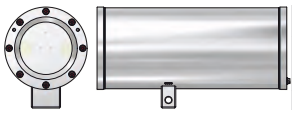
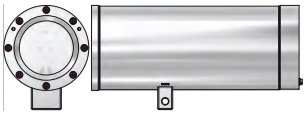
The **To7 housing series** is an extremely powerful camera housing concept suitable for hazardous areas and is certified according to European regulations (ATEX) as well as international ones (IECEx). The housings' certification comprises ATEX group I (mining) and die ATEX group II (gas & dust). In accordance with the requirements of the impact and free-fall tests (DIN EN 60079: 0 2012), the housings are suitable for fix and mobile (portable) applications!

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✓ |

| Product / Model | | Description |
|---|---|---|
| new! T07-VA1.1.K1.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 79x79x128 mm, weight: 2000 g,<br>Void volume: 360 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA1.1.K2.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 79x79x141 mm, weight: 2500 g,<br>Void volume: 360 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA1.2.K1.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 79x79x157 mm, weight: 2200 g,<br>Void volume: 480 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA1.2.K2.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 79x79x171 mm, weight: 2700 g,<br>Void volume: 480 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |

## T07 Enclosure Series

| Product / Model | | Description |
|---|---|---|
| new! T07-VA2.1.K1.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 113x113x210 mm, weight: 4200 g,<br>Void volume: 1520 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA2.1.K2.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 113x113x226 mm, weight: 5500 g,<br>Void volume: 1520 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA2.2.K1.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 113x113x261 mm, weight: 5100 g,<br>Void volume: 1960 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| new! T07-VA2.2.K2.BOR  | | Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification)<br>Dimensions (without pin): 113x113x277 mm, weight: 6400 g,<br>Void volume: 1960 cm³<br>Explosion protection (gas): Ex d IIC Gb<br>Explosion protection (dust): Ex t IIIC Db IP68<br>Explosion protection (mining): Ex d I Mb<br>Protection level: IP 68 (IEC / EN 60529)<br>Ambient temperature: -60° C < $T_{amb}$ < +85° C<br>Product group: A |
| | | Accessories and mounting adapter |

# (Ex) Lighting Systems

Process and object lighting are obligatory in explosion risk zones and hazardous areas.
The right combination of lighting equipment and the usage of fast camera lenses is essential to get crisp and sharp images. The following lighting systems are the perfect match for the ExCam series; using the same pressure-proof housings. Almost all lighting systems are available for non-explosion risk zones also.

## Process illumination & illumination for small spaces

| Product / Model | | Description |
|---|---|---|
| ChemLux FHEL d<br>LED-S K1 sp<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>230-240 VAC, 7 W, Ta -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| ChemLux FKEL<br>20 dH<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>24 V AC/DC, 20 W , $T_{amb}$: -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| ChemLux FKEL<br>50 dH<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>24V AC/DC, 50W, $T_{amb}$: -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| ChemLux R100<br>deH<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>24V AC/DC, 100 W , $T_{amb}$: -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| EdelEx 20<br>dH K1<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>24V AC/DC, 20 W, $T_{amb}$: -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| EdelEx 50<br>dH K1 (T4)<br> | Ex<br>IP67<br>-20°C<br>+40°C | Lighting for explosion risk zones<br>24V AC/DC, 50W, $T_{amb}$: -20° C to +40° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |
| EdelEx 50<br>dH K1 (T3)<br> | Ex<br>IP67<br>-20°C<br>+60°C | Lighting for explosion risk zones<br>24V AC/DC, 50W, $T_{amb}$: -20° C to +60° C<br>Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb<br>Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67<br>Protection level: IP 67 (IEC / EN 60529)<br>Includes 5 m cable 3 x 1.5 mm²<br>Product group: C, tariff number: 9405 4000 |

## Room Illumination (White Light)

| Product / Model | | Description |
|---|---|---|
| new! SPX-FL12-W-8030 | | LED White Light Illuminator 30 W (80° x 30°)<br>Angle: 80° x 30°, Operating voltage: 110-254 VAC<br>Power: 30 W Luminous flux 2000 lm, dimensions: 192x206x163 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82° C Db<br>$T_{amb}$: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>12 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product group: C |
| new! SPX-FL24-W-8030 | | LED White Light Illuminator 60 W (80° x 30°)<br>Angle: 80° x 30°, Operating voltage: 110-254 VAC<br>Power: 60 W Luminous flux 4000 lm, Dimensions: 291x247x150 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82 ° C Db<br>$T_{amb}$: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>24 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product group: C |
| new! SPX-FL48-W-8030 | | LED White Light Illuminator 120 W (80° x 30°)<br>Angle: 80° x 30°, Operating voltage: 110-254 VAC<br>Power: 120 W, luminous flux 8000 lm, Dimensions: 291x438x151 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82 ° C Db<br>Tamb: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>48 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product group: C |

## Room Illumination (Infrared)

| Product / Model | | Description |
|---|---|---|
| new! SPX-FL12-I-8030 | | LED Infrared Illuminator 30 W (80° x 30°)<br>Viewing angle: 80° x 30°, lighting range: 40 m<br>Operating voltage: 110-254 VAC<br>Power: 30 W, 850 nm wavelength, dimensions: 192x206x163 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82 ° C Db<br>$T_{amb}$: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>12 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product group: C |
| new! SPX-FL24-I-8030 | | LED Infrared Illuminator 60 W (80° x 30°)<br>Viewing angle: 80° x 30°, Illumination range: 58 m<br>Operating voltage: 110-254 VAC<br>Power: 60 W, 850 nm wavelength, dimensions: 291x247x150 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82 ° C Db<br>$T_{amb}$: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>24 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product group: C |
| new! SPX-FL48-I-8030 | | LED Infrared Illuminator 120 W (80° x 30°)<br>Viewing angle: 80° x 30°, Illumination range: 80 m<br>Operating voltage: 110-254 VAC<br>Power: 120 W, wavelength 850 nm, dimensions: 291x438x151 mm<br>Explosion protection (gas): Ex em IIC T4 Gb<br>Explosion protection (dust): Ex tb IIIC T82 ° C Db<br>$T_{amb}$: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529)<br>48 ultra-durable LED, CoolExtrude ™ Temperature Management<br>More angles, light-range and temperature classes on request.<br>Product Group: C |

# Installation Equipment

All accessories have been thoroughly tested with regard to their use in industrial zones, reflecting the highest quality standards.
Accessories for explosion risk zones are in accordance with the current norms; DIN EN 60079-0,-14, regulation 94/9/EC as well as the norms for the applicable explosion protection.

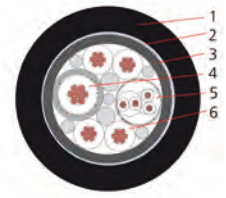
## Terminal Boxes in Ex-e

| Product / Model | | Description |
|---|---|---|
| Ex-e Terminal Box<br>ExTB-2<br> | | Terminal box for analog and digital ExCam systems<br>Gas – Explosion proof: Ex II 2 G Ex e II T6<br>Dust – Explosion proof: Ex II 2 D Ex tD A21 IP66<br>Material: Polyester resin, dimensions: 115 x 115 x 64 mm<br>Protection level: IP 66, Ambient temperature limit: - 40° C to + 55° C<br>Max. power supply: 690 V, max. diameter: 2.5 mm²<br>10 pcs. terminal clamp UT 2.5, Marking: 1-10,<br>2 pcs. conductor terminal USLKG 5<br>1 pc. TS35 carrier rail TS35 100 mm<br>2 pcs. 8161/5-M20-9 screw connection M20x1.5 sw<br>Product group: C |
| Ex-e Terminal Box<br>ExTB-4<br> | | Terminal box for analog as well as digital ExCam systems<br>Gas - Explosion proof: Ex II 2 G Ex e II T6<br>Dust – Explosion proof: Ex II 2 D Ex tD A21 IP66<br>Material: polyester resin, Dimensions: 115 x 115 x 64 mm<br>Protection level: IP 66, Ambient temperature limit: - 40° C to + 55° C<br>Maximum power supply: 690 V, Maximum diameter: 2.5 mm²<br>10 pcs. terminal clamp UT 2.5, Marking: 1-10,<br>2 pcs. conductor terminal USLKG 5, 1 pc. TS35 carrier rail TS35 100 mm<br>4 pcs. 8161/5-M20-9 screw connection M20x1.5 sw<br>Product group: C |
| Ex-e Terminal Box (BTO)<br>ExTB -(BTO) | | We have a large selection of junction boxes in Ex-e or Ex-d.<br>Different materials, sizes and cable entries can be freely combined.<br>Please ask us! |

## Power Supply

| Product / Model | Description |
|---|---|
| Dehner DUE<br>DUE 15WCP-24V<br> | Universal power supply with interchangeable plug adapter<br>(thus can be used internationally). Device in accordance with EN 60601,<br>can be used in medical applications as well.<br>Short circuit protection as well as overload protection, automatic restart.<br>Cable length: 1.8 m.<br>CE-, TUEV, cUL. EN 60601- certified for medical applications.<br>Product group: C |
| PULS<br>ML15.241<br> | Top hat rail power supply.<br>Power supply (in): 85 VAC - 264 VAC<br>Power supply (out): 24 VDC<br>Power: 15 W<br>Adjustable power supply (out).<br>Product group: C |
| More power supply units | We have power supply units for critical ambient temperatures,<br>different performance classes, diode-modules and redundancies.<br>Please ask us! |

## Cable & Wiring

| Product / Model | Description |
|---|---|
| SKA02<br> | System cable analog<br>Special wiring in accordance with DIN EN 60079-14<br>Outer diameter: 9.4 mm, bending radius: min. 150 mm<br>Video: 1x75 OHM Coax AWG 24, Cu shielded<br>Data (physic.): 2x2x0.25 mm² closed Cu shielded<br>Data (protocol): RS232, RS422, RS485 full duplex<br>Power supply heating: 2x0.75 mm²<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| SKAD01<br> | System cable digital<br>Special explosion proof wiring in accordance with DIN EN 60079-14<br>Outer diameter: 14.50±0.30 mm<br>Maximum bending radius: 150 mm<br>Material outer cable sheath: PUR – flame retardant in accordance with IEC 60322-1-2 1KW flame<br>Color outer cable sheath: RAL 9005 matt<br>Coax 75OHM, 4x0.75 mm², 5x1.5 mm², 6x2x0.25 mm²<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| ASKA02<br>  | Reineforced system cabel analog<br>Special explosion proof wiring in accordance with DIN EN 60079-14<br>Outer diameter: 9.4 mm, bending radius: min. 150 mm<br>Video: 1x75 OHM Koax AWG 24, Cu shielded<br>Date (physic.): 2x2x0.25 mm² closed Cu shielded<br>Data (protocol): RS232, RS422, RS485 full duplex<br>Power supply camera: 2x0.75 mm²<br>Power supply heating: 2x0.75 mm²<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| SKD01<br> | System cable digital<br>Special explosion proof wiring in accordance with DIN EN 60079-14.<br>Outer diameter: ø 8.7 ±0.3 mm<br>Max bending radius: 10 mm<br>Material outer cable sheath: PUR – flame retardant in accordance with IEC 60322-1-2 1KW flame<br>Composition: 4 x 2 x AWG22/1 shielded<br>Perfect for PoE cameras and cameras with normal power supply.<br>See data sheet for technical data - www.samcon.eu<br>Product group: A |
| | …more cables upon request |

## Twisted Pair Transmitter/Receiver

| Product / Model | Description |
|---|---|
| Passive twisted pair transmitter<br>VZT-21B/TB<br> | Passive twisted pair transmitter or receiver for ExCam systems<br>The device can be either directly connected to a video server or to an analog monitor. It converts the symmetrical CVBS signal of the camera into an asymmetrical one. CVBS input / output, BNC terminal block<br>Product group: C |
| Further transmitters | |

# Network Components

High-performance CCTV networks require high performance components.
Except for some special applications, IP-based camera networks will, in the long run, prevail over analog networks. The main reasons are as follows:

1. When installing an IP-based network system, parts, components and cameras from all manufactures can be used
2. All ethernet means (copper, fiber, wireless) can be used.
3. In IP-based networks, all video images cannot only be viewed on work stations in the control room but also on standard PCs, notebooks, tablet PCs and smartphones as well! This means that no special hardware, such as controllers or analog monitors, have to be purchased
4. Software solutions allow a very high degree of customizing. Just one example: Camera views can be embedded either in maps or in flow diagrams
5. Unlike with analog networks, IP-based networks can be fully integrated into the PCS
6. IP-based camera systems can be accessed worldwide (for example via a secure VPN tunnel). This means that cameras can be controlled and viewed from anywhere in the world – and not only from one control room. In addition, the camera history can be sent directly to your desktop

All components, such as the ExCam Series, (Ex)Connection Rails or video servers, are perfectly suitable for our CCTV-networks. Whether you plan a small test or a large industrial network.

## Desktop Switches

| Product / Model | Description |
|---|---|
| Netgear<br>GS108<br> | GigE 8-Port Gigabit-Copper-Switch<br>8 Autosensing-Gigabit-Copper-Ports with 10/100/1000 MBit/s<br>Auto Uplink, Unmanaged, compact, sturdy metal housing<br>LED displays, external power supply<br>Plug-and-Play-Installation<br>Silent operation (no fan)<br>Product group: C, tariff number: 8517 6200 |
| Netgear<br>GS108P<br> | GigE 8-Port Gigabit-Copper-Switch<br>8 Autosensing-Gigabit-Copper-Ports with 10/100/1000 MBit/s<br>4 PoE Ports<br>Auto Uplink, Unmanaged, compact, sturdy metal housing<br>LED displays, external power supply<br>Plug-and-Play-Installation<br>Silent operation (no fan)<br>Product group: C, tariff number: 8517 6200 |

## Industrial Fast Ethernet Switches

| Product / Model | Description |
|---|---|
| MOXA Ethernet Switch<br>EDS-308<br> | 8 Port Ethernet Switch with metal housing<br>TX Ports: 8x10/100BaseT(X) thereof:<br>PoE Ports: 0<br>FX Ports: 0<br>Temperature: 0 - 60° C<br>Compact and sturdy housing, ideal for industrial usage.<br>Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function<br>(triggered on power or network shortage), redundant power supply<br>Product group: C |
| MOXA Ethernet Switch<br>EDS-P308<br> | 8 Port Ethernet Switch with metal housing<br>TX Ports: 8x10/100BaseT(X) thereof:<br>PoE Ports: 4<br>FX Ports: 0<br>Temperature: 0 - 60° C<br>Compact and sturdy housing, ideal for industrial usage.<br>Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function<br>(triggered on power or network shortage)<br>Connection for 2 redundant power supplies 24 VDC<br>Product group: C |

## Industrial Gigabit Ethernet Switches, Media Converter and Firewall

| Product / Model | Description |
|---|---|
| MOXA Ethernet Switch<br>EDS-G308-SFP<br> | 8 Port Ethernet Switch with metal housing<br>TX Ports: 8x10/100BaseT(X) thereof:<br>PoE Ports: 0<br>FX Ports: up to 2<br>Temperature: 0 - 60° C<br>Compact and sturdy housing, ideal for industrial usage.<br>Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function<br>(triggered on power or network shortage)<br>Connection for 2 redundant power supplies 24 VDC<br>Product group: C |
| MOXA Ethernet Switch<br>EDS-G205A-4PoE -1GSFP<br> | 5 Port Ethernet Switch with metal housing<br>TX Ports: 5x10/100BaseT(X)<br>thereof PoE Ports: 4<br>FX Ports: 1<br>Temperature: 0 - 60° C<br>Compact and sturdy housing, ideal for industrial usage.<br>Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function<br>(triggered on power or network shortage)<br>Connection for 2 redundant power supplies 24 VDC<br>Product group: C |
| MOXA Gigabit SFP Module<br>SFP-1GSXLC<br> | SFP module for Gigabit Ethernet Multimode FOC transmission<br>In accordance with IEEE 802.3z<br>Differential LVPECL-inlets and out lets<br>TTL signal display<br>Hot pluggable<br>Product of laser class 1, corresponds with EN60825-1<br>Product group: C |
| MOXA Access Point<br>AWK-3121-EU<br> | WLAN Access Point<br>Wireless 802.11 a/b/g, AP/Bridge/Client<br>- 64-bit and 128-bit WEP (Wired Equivalent Privacy)<br>- Enable/disable SSID broadcasts<br>- WPA/WPA2 (Wi-Fi Protected Access) support<br>- IEEE802.1X/RADIUS support<br>- Powerful IP packet filters<br>Product group: C |
| MOXA Secure Router<br>EDR-G903 3-port<br> | Moxa Gigabit Ethernet Firewall<br>Router/Firewall/VPN* All-in-One-solution<br>High-performance Gigabit-combi-port (for copper /fiber optic cable)<br>WAN redundancy function with 2 WAN interfaces<br>and 1 LAN interface<br>NAT functions (N-to-1 NAT, 1-to-1 NAT and port forwarding)<br>Intelligente PolicyCheck and SettingCheck Tools<br>Product group: C |
| MOXA<br>RK-4U<br> | 19-inch-35mm-mounting rain adapter<br>This rack offers the best solution for industrial BTO switches.<br>In combination with redundantly executed power supplies, if applicable, it<br>is possible to install all Moxa switches.<br>Product group: C |

**Quad Video Server**
Axis Q7404

# Video Server

Video servers convert video, audio, and binary signals into Ethernet-network streams, making them available over long distances. Without the applicable protective housing, video servers which are not ATEX certified must not be installed in explosion risk areas (q.v. ExConnection Rail Series).
All SAMCON video servers are **100% compatible** with all analog cameras of the **ExCam® Series**, as well as with our video management system **SAMCONtrol**.

| Group II (Gas & Dust) | - | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✗ | ✗ | ✗ | ✗ |

| Group I (Mining) | - | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | Description |
|---|---|
| Axis<br>M7001<br> | 1-Channel Ethernet video server<br>Video compression: MJPEG and H.264<br>Maximum transmission rate: 25fps@4CIF<br>DI: 0, DO: 0<br>Interfaces: 1xRS422/485<br>Internal recording archive: No, audio: No<br>Required IP addresses: 1<br>Power supply: PoE (IEEE 802.3af), class 2<br>See data sheet for technical data - www.samcon.eu<br>Product group: C, tariff number: 8517 62000 |
| Axis<br>M7001-BTO<br> | 1-Channel Ethernet video server - BTO<br>This BTO version comprises the following scope:<br>Connection of the equipment, installation of the applicable PTZ driver,<br>execution and logging of a function as well as quality check.<br>Video compression: MJPEG and H.264<br>Maximum transmission rate: 25fps@4CIF<br>DI: 0, DO: 0<br>Interfaces: 1xRS422/485<br>Internal recording archive: No, audio: No<br>Required IP addresses: 1<br>Power supply: PoE (IEEE 802.3af), class 2<br>Product group: B, tariff number: 8517 62000 |
| Axis<br>Q7401<br> | 1-Channel Ethernet video server<br>Video compression: MJPEG and H.264<br>Maximum transmission rate: 25fps@4CIF<br>Digital In/Outputs: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485<br>Internal recording archive: via SD Slot<br>Audio: Full duplex<br>Required IP addresses: 1<br>Power supply: 9-20 VDC or PoE class 2<br>See data sheet for technical data - www.samcon.eu<br>Product group: C, tariff number: 8525 5000 |
| Axis<br>Q7401 - BTO<br> | 1-Channel Ethernet video server - BTO<br>This BTO version comprises the following scope:<br>Connection of the equipment, installation of the applicable PTZ driver,<br>execution and logging of a function as well as quality check.<br>Video compression: MJPEG and H.264<br>Maximum transmission rate: 25fps@4CIF<br>Digital In/Outputs: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485<br>Internal recording archive: via SD Slot<br>Audio: Full duplex<br>Required IP addresses: 1<br>Power supply: 9-20 VDC or PoE class 2<br>Product group: B, tariff number: 8525 5000 |

## Quad Port Video Server for up to four Analog Cameras

| Product / Model | Description |
|---|---|
| Axis<br>P7214<br> | 4-Channel Ethernet video server<br>Video compression: MJPEG and H.264<br>Maximum transmission rate per channel: 25fps@4CIF<br>Digital In/Outputs: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485 (BUS or DAISY CHAIN!)<br>Internal recording archive: 1 x microSDHC<br>Audio: External microphone, in or line in line level output,<br>audio streams, recording (AU) and uploaded (WAV, AU), play clips<br>Required IP addresses: 1<br>Power supply: 8-20 VDC or PoE class 3<br>See data sheet for technical data - www.samcon.eu<br>Product group: C, tariff number: 8517 6990 |
| Axis<br>P7214 - BTO<br> | 4-Channel Ethernet video server - BTO<br>This BTO version comprises the following scope:<br>Connection of the equipment, installation of the applicable PTZ driver,<br>pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a<br>function as well as quality check.<br>Video compression: MJPEG and H.264<br>Maximum transmission rate per channel: 25fps@4CIF<br>Digital In/Outputs: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485 (BUS or DAISY CHAIN!)<br>Internal recording archive: 1 x microSDHC<br>Audio: External microphone, in or line in line level output, audio streams,<br>recording (AU) and uploaded (WAV, AU), play clips<br>Required IP addresses: 1<br>Power supply: 8-20 VDC or PoE class 3<br>Product group: B, tariff number: 8517 6990 |
| Axis<br>Q7404<br> | 4-Channel Ethernet video server<br>Video compression: MJPEG and MPEG4<br>Maximum transmission rate per channel: 25fps@4CIF<br>digital in/out per channel: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485 per channel<br>Internal recording archive: no<br>Audio: Half duplex on channel 1<br>Required IP addresses: 4<br>Power supply: 8-20 VDC<br>It is possible to install different PTZ drivers on each channel<br>See data sheet for technical data - www.samcon.eu<br>Product group: C, tariff number: 8525 5000 |
| Axis<br>Q7404 - BTO<br> | 4-Channel Ethernet video server - BTO<br>This BTO version comprises the following scope:<br>Connection of the equipment, installation of the applicable PTZ driver,<br>pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a<br>function as well as quality check.<br>Video compression: MJPEG and MPEG4<br>Maximum transmission rate per channel: 25fps@4CIF<br>Digital in/out per channel: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485 per channel<br>Internal recording archive: no<br>Audio: Half duplex on channel 1<br>Required IP addresses: 4<br>Power supply: 8-20 VDC<br>It is possible to install different PTZ drivers on each channel<br>Product group: B, tariff number: 8525 5000 |

## Quad Port Video Server for up to four Analog Cameras

| Product / Model | Description |
|---|---|
| Axis<br>Q7424-R<br> | 4-Channel Ethernet video server<br>Video compression: MJPEG and MPEG4<br>Maximum transmission rate per channel:15-25fps@4CIF<br>Digital in/out per channel: 4 (as DI or DO configurable)<br>Interfaces: 1xRS422/485<br>Ethernet: Copper PoE and SFP Slot<br>Internal recording archive: Yes (SD Card)<br>Audio: Full duplex, Required IP addresses: 1<br>Power supply: 8-28 VDC, max. 10 W, 20-24 VAC, max. 15.6 W<br>Power over Ethernet IEEE 802.3af Class 3<br>See data sheet for technical data - www.samcon.eu<br>Product group: C, tariff number: 8525 5000 |
| Axis<br>Q7424-R -BTO<br> | 4-Channel Ethernet video server - BTO<br>This BTO version comprises the following scope:<br>Connection of the equipment, installation of the applicable PTZ driver, pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a function as well as quality check.<br>Video compression: MJPEG and MPEG4<br>Maximum transmission rate per channel:15-25fps@4CIF<br>Digital in/out per channel: 4 (configurable as DI or DO)<br>Interfaces: 1xRS422/485<br>Ethernet: Copper PoE and SFP Slot<br>Internal recording archive: Yes (SD Card)<br>Audio: Full duplex, Required IP addresses: 1<br>Power supply: 8-28 VDC, max. 10 W, 20-24 VAC, max. 15.6 W;<br>Power over Ethernet IEEE 802.3af Class 3<br>Product group: B, tariff number: 8525 5000 |
| More Video Server | You didn't't found anything in our video server range? You need other types of construction, or have already decided on alternative manufacturers? You already have video server racks and are looking for compatible cameras and drivers?<br>All this is not a problem for us. Contact us! |

The **Connection Rail Series** converts video audio and I/O signals into Ethernet network streams and therefore makes them available across long distances regardless of media.

As part of the **Connection Rail series**, both ATEX-certified devices for use in explosion risk zones and non-ATEX devices for cabinet rooms are available. Thanks to the diversity of the interfaces, our Connection Rails can solve any digitalization task. Cameras from all the renowned manufacturers can be controlled based on the network using an RS232/RS422 or RS485 interface. Network integrations can be implemented via fibre optic cables, copper-bonded Ethernet or WLAN.

**Analogue Cameras – Digital Networks.**
Camera and communication systems can be established in analogue or digitally. We speak of **analogue camera systems** when the image signal is transferred in analogue. We speak of **digital camera systems** when the image information and, if necessary, sound information is transferred using the TCP/IP protocol (Video over IP, Voice over IP). Even when planning camera and communication systems in explosion risk zones, it is often impossible to do without the benefits of both systems **(analogue camera systems AND digital networks)**.
In the field, analogue camera systems often have benefits compared with digital, so called IP cameras. It is therefore possible, for instance, for supply cables to analogue cameras, such as the ExCam miniZoom, to easily be up to 200 metres long, even in EMC-critical zones. Network cables to IP cameras should not exceed a length of 100 metres. Furthermore, analogue cameras can be built in a much more compact manner than IP cameras. This saves pressure-resistant encapsulated space and makes analogue camera systems more efficient, too.

Nevertheless, the future lies in digital networks. **IP-based camera networks** will establish themselves, apart from a few special applications, in the long term compared with analogue camera networks. Only by **incorporating video and audio signals in the Ethernet** are these available to other network participants. Installation distances play no role when it comes to digital camera networks – information can, if necessary, be transferred all over the world via the Internet. Conventional Ethernet PCs can be used to visualise the camera images. Software solutions are becoming important tools and replace expensive additional hardware. Real integration in process control systems can be implemented.

**FOC, Copper or WLAN Ethernet.**
Ethernet signals can be transferred via copper line (Cat5), fibre optic cable or radio (WLAN). These transfer media may vary in any way in the case of our Connection Rails. For long installation paths to the next active network participant, it is advisable to use fibre optic cables. An industrial access point, which supports all common operating types, such as Bridge or WDS, is used as a WLAN unit.
A **Connection Rail with WLAN** turns analogue cameras into **WLAN cameras**. And it can do this in an explosion risk zone, if necessary**.**

**Connection Rail - S**
with stainless steel housing

# Connection **Rail** - S

The **ConnectionRail Series** converts video, audio and binary signals in ethernet-network streams, making them available over long distances. Interface diversity makes our ConnectionRails solve every digitalization task. Cameras of renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

| Group II (Gas & Dust) | - | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | X | X | X | X | X |

| Group I (Mining) | - | |
|---|---|---|
| Category | Ma | Mb |
| Application | X | X |

| Product / Model | Description |
|---|---|
| Connection Rail - S<br>T05-S-001 | Plug & Play connection and digitalization unit for four analog cameras.<br>Compact cabinet in stainless steel 1.4301, for wall mounting. Including two Axis Q7404 video server, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| Connection Rail „FOC"<br>T05-X-X11 | Option accessory (surcharge): „FOC"<br>Same as Model T05-S-001 but with FOC media converter<br>to connect to Ethernet FX<br>Product group: B, tariff number: 8525 6000 |
| Connection Rail „WLAN"<br>T05-X-1X1 | Option accessory (surcharge): „WLAN"<br>Same as Model T05-S-001.<br>Furthermore, the device contains one WLAN access point. |
| Connection Rail „I/O"<br>T05-X-XXX | Option „I/O" surcharge per relay package :<br>Four binary contacts as couple relay pre-wired.<br>The binary contacts can either be interconnected as digital inputs or<br>digital outputs. The „I/O" package allows establishing a simple but effective communication with external devices or systems. For example, in case of a motion detection, the binary outputs allow connecting lights or security gates. By the means of the binary inputs, it is possible to transmit external commands, such as recordings, to the video system<br>DO: Maximum specific values: 250V / 6A<br>DI: Potential free contact |
| Connetction Rail - BTO | Build-to-Order-Versions on request |

**Connection Rail - Q**
with stainless steel housing

# Connection Rail - Q/Q²

The **ConnectionRail Series** converts video, audio and binary signals in ethernet-network streams, making them available over long distances. Interface diversity makes our ConnectionRails solve every digitalization task. Cameras of renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

| Group II (Gas & Dust) | - | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✗ | ✗ | ✗ | ✗ |

| Group I (Mining) | - | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | Description |
|---|---|
| Connection Rail - Q<br>T05-Q-001 | Plug & Play connection and digitalization unit for four analog cameras.<br>Compact cabinet in stainless steel 1.4301, for wall mounting. Including an Axis Q7404 video server, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| new!<br>Connection Rail - Q²<br>T05-Q2-001 | Plug & Play connection and digitalization unit for four analog cameras.<br>Compact cabinet in stainless steel 1.4301, for wall mounting. Including two Axis Q7404 video servers, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| Connection Rail „FOC“<br>T05-X-X11 | Option accessory (surcharge): „FOC“<br>Same as Model T05-Q-001 but with FOC media converter to connect to Ethernet FX<br>Product group: B, tariff number: 8525 6000 |
| Connection Rail „WLAN“<br>T05-X-1X1 | Option accessory (surcharge): „WLAN“<br>Same as Model T05-Q-001.<br>Furthermore, the device contains one WLAN access point. |
| Connection Rail „I/O“<br>T05-X-XXX | Option „I/O“ surcharge per relay package :<br>Four binary contacts as couple relay pre-wired.<br>The binary contacts can either be interconnected as digital inputs or digital outputs. The „I/O“ package allows establishing a simple but effective communication with external devices or systems. For example, in case of a motion detection, the binary outputs allow connecting lights or security gates. By the means of the binary inputs, it is possible to transmit external commands, such as recordings, to the video system<br>DO: Maximum specific values: 250V / 6A<br>DI: Potential free contact |
| Connetction Rail - BTO | Build to Order Version |

# Connection Rack - Q/Q²/Q³

**Connection Rack - Q²**
in 4U 19-Inch-Rack

The **Connection Rack** series converts video, audio and I/O signals into ethernet network streams, making them available over long distances. Interface diversity makes our Connection Racks solve every digitalization task. Cameras from renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

| Group II (Gas & Dust) | - | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | X | X | X | X | X |

| Group I (Mining) | - | |
|---|---|---|
| Category | Ma | Mb |
| Application | X | X |

| Product / Model | Description |
|---|---|
| Connection Rack - Q<br>T05-Q-001 | Plug & Play connection and digitalization unit for four analog cameras.<br>The device includes a 4U 19´´ Rack with one Axis Q7404 video server, lever lockers, power supply and ethernet terminal point.<br>The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol.<br>ExCam® driver pre-installed and tested.<br>On the rear side, the slot is wired with terminals.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| Connection Rack - Q²<br>T05-Q2-001 | Plug & Play connection and digitalization unit for eight analog cameras.<br>The device includes a 4U 19´´ Rack with two Axis Q7404 video servers, lever lockers, power supply and ethernet switch.<br>The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol.<br>ExCam® driver pre-installed and tested.<br>On the rear side, the slot is wired with terminals.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| new!<br>Connection Rack - Q³<br>T05-Q3-001 | Plug & Play connection and digitalization unit for twelve analog cameras.<br>The device includes a 4U 19´´ Rack with three Axis Q7404 video server, lever lockers, power supply and ethernet switch.<br>The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol.<br>ExCam® driver pre-installed and tested.<br>On the rear side, the slot is wired with terminals.<br>See data sheet for technical data - www.samcon.eu<br>Product group: B, tariff number: 8525 6000 |
| Connection Rack - „FOC"<br>T05-QX-X11 | Option accessory FOC (surcharge): „FOC"<br>Same as Model T05-Q-001 but with FOC media converter<br>to connect to Ethernet FX.<br>Product group: B, tariff number: 8525 6000 |
| Connection Rack - „I/O"<br>T05-QX-XXX | Option „I/O" surcharge per relay package<br>Four binary contacts as couple relay pre-wired.<br>The binary contacts can either be interconnected as digital inputs or<br>digital outputs.<br>DO: Maximum specific values: 250V / 6A<br>DI: Potential free contact |
| Connection Rack (BTO) | Build-to-Order versions on request |

**ExConnection Rail - Q**
in an Ex-de Enclosure

# ExConnection **Rail** - S/Q/Q$^{x}$

The **ExConnectionRail Series** converts video, audio and binary signals in Ethernet-network streams and makes them available over long distances. Interface diversity makes our ExConnectionRails solve every digitalization task. Cameras from renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| new! ExConnection Rail - S<br>T04-D-S-001 | Ex IP66 -20°C +40°C | Explosion proof connection and digitalization unit for one analog camera.<br>Explosion proof Ex-d housing for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested.<br>Ex. Protection (gas): Ex II 2 G Ex d IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - Q<br>T04-D-Q-001 | Ex IP66 -20°C +40°C | Explosion proof connection and digitalization unit for up to four analog cameras.<br>Explosion proof Ex-d housing for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested.<br>Ex. Protection (gas): Ex II 2 G Ex d IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| ExConnection Rail - Q<br>T04-DE-Q-001 | Ex IP66 -20°C +40°C | Explosion proof connection and digitalization unit for up to four analog cameras.<br>Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested.<br>Ex. Protection (gas): Ex II 2 G Ex de IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |

**ExConnection Rail - S/Q/Q2/Q3** for analog cameras

| Product / Model | | Description |
|---|---|---|
| new! ExConnection Rail - $Q^2$<br>T04-DE-Q2-XX1<br> | | Explosion proof connection and digitalization unit for up to eight analog cameras.<br>Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with two Axis video servers, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested.<br>Ex. Protection (gas): Ex II 2 G Ex de IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Ex II 2 G Ex de IIC T6<br>Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - $Q^3$<br>T04-DE-Q3-XX1<br> | | Explosion proof connection and digitalization unit for up to twelve analog cameras.<br>Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with three Axis video servers, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested.<br>Ex. Protection (gas): Ex II 2 G Ex de IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Ex II 2 G Ex de IIC T6<br>Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| ExConnection Rail „FOC“<br>T04-DE-QX-X1X | | Optional accessory (surcharge): „FOC“<br>Ethernet ST patch field, intrinsically safe fibre optics transmission.<br>Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C |
| ExConnection Rail „WLAN“<br>T04-DE-XX-1XX<br> | | Optional accessory (surcharge): „WLAN“<br>W-LAN Access Point allowing wireless transmission of video and/or I/O signals.<br>Ex. Protection (gas): Ex II 2 G Ex dx mb [ia/ib] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [ia/ib] A21 IP66 T80° C |
| new! ExConnection Rail „Plug“<br>T04-DX-XXX<br> | | Optional accessory (surcharge): „WLAN“<br>All connectors are pluggable. Different ATEX/IECEx- Plugs are available: Ex-de-Plugs, as well as inline-versions, for analog, digital or hybrid cameras. Even FOC/Copper plug combinations are available.<br>Ex. Protection (gas): Ex II 2 G Ex dx IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C |
| new! ExConnection Rail „mobile“<br>T04-DX-XXX<br> | | Optional accessory (surcharge): „mobile“<br>The system is mounted on a portable stainless steel frame.<br>Ex. Protection (gas): Ex II 2 G Ex dx IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C |
| ExConnection Rail (BTO) | | Build-to-Order versions on request |

**ExConnection Rail - PoE**
in an Ex-de Enclosure

# ExConnection **Rail** - PoE

High performance PoE switches for hazardous areas. The ExConnection Rail - PoE is designed to connect our **digital PoE cameras**. The ExConnection Rail - PoE's centerpieces are high performance GigE network switches. As an option, the **FX ports can also be executed to reflect the ignition protection category [op is]**. The ExConnection Rail - PoE allows the connection of up to 16 PoE cameras. The connection of the GBit/s FX ports is possible over very large distances.

| Group II (Gas & Dust) | ATEX | | | | |
|---|---|---|---|---|---|
| Zone | 0 | 1 | 2 | 21 | 22 |
| Application | ✗ | ✓ | ✓ | ✓ | ✓ |

| Group I (Mining) | ATEX | |
|---|---|---|
| Category | Ma | Mb |
| Application | ✗ | ✗ |

| Product / Model | | Description |
|---|---|---|
| new! ExConnection Rail - PoE T04-D-PoE-1TX-1TX | Ex IP66 -20°C +40°C | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-d) housing for wall mounting.<br>Inclusive Cable Glands with internal pressure barrier (IIC <2L).<br>1 x Power input: 230 VAC<br>1 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x TX Port (10/100BASE-TX) (Output-Cabinet Room)<br>Ex. Protection (gas): Ex II 2 G Ex d IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - PoE T04-D-PoE-4TX-1FX | Ex IP66 -20°C +40°C | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-d) housing for wall mounting.<br>Inclusive Cable Glands with internal pressure barrier (IIC <2L).<br>1 x Power input: 230 VAC<br>4 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x FX Port (100BaseFX MM-ST) (Output-Cabinet Room)<br>Ex. Protection (gas): Ex II 2 G Ex d [op pr] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op pr] A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - PoE T04-DE-PoE-4TX-1FX | Ex IP66 -20°C +40°C | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-de) housing for wall mounting.<br>Interfaces in the Ex-e terminal box:<br>1 x Power input on 3xUT6 Terminals: 230 VAC<br>4 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room)<br>All Ethernet Connectors are setup via terminals.<br>Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - PoE T04-DE-PoE-8TX-1FX | Ex IP66 -20°C +40°C | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-de) housing for wall mounting.<br>Interfaces in the Ex-e terminal box:<br>1 x Power input on 3xUT6 Terminals: 230 VAC<br>8 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room)<br>All Ethernet Connectors are setup via terminals.<br>Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |

**ExConnection Rail - PoE** for TCP/IP Camera Systems

| Product / Model | | Description |
|---|---|---|
| new! ExConnection Rail - PoE<br>T04-DE-PoE-12TX-1FX<br> | | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-de) housing for wall mounting.<br>Interfaces in the Ex-e terminal box:<br>1 x Power input on 3xUT6 Terminals: 230 VAC<br>12 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room)<br>All Ethernet Connectors are setup via terminals.<br>Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - PoE<br>T04-DE-PoE-16TX-1FX<br> | | High performance PoE-Switch for hazardous areas.<br>Explosion proof (Ex-de) housing for wall mounting.<br>Interfaces in the Ex-e terminal box:<br>1 x Power input on 3xUT6 Terminals: 230 VAC<br>16 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field)<br>1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room)<br>All Ethernet Connectors are setup via terminals.<br>Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C<br>Product group: B, tariff number: 8525 6000 |
| new! ExConnection Rail - PoE „WLAN“<br>T04-DX-PoE-XXX-XXX „WLAN“<br> | | Optional accessory (surcharge): „WLAN“<br>W-LAN Access Point allowing wireless transmission of video and/or I/O signals.<br>Ex. Protection (gas): Ex II 2 G Ex dx mb [ia/ib] IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td [ia/ib] A21 IP66 T80° C |
| new! ExConnection Rail - PoE „Plug“<br>T04-DX-PoE-XXX-XXX-“Plug“<br> | | Optional accessory (surcharge): „WLAN“<br>All connectors are pluggable. Different ATEX/IECEx- Plugs are available:<br>Ex-de-Plugs, as well as inline-versions, for analog, digital or hybrid cameras. Even FOC/Copper plug combinations are available.<br>Ex. Protection (gas): Ex II 2 G Ex dx IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C |
| new! ExConnection Rail - X „mobile“<br>T04-DX-PoE-XXX-XXX „mobile“<br> | | Optional accessory (surcharge): „mobile“<br>The system is mounted on a portable stainless steel frame.<br>Ex. Protection (gas): Ex II 2 G Ex dx IIC T6<br>Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C |
| ExConnection Rail - PoE (BTO) | | Build-to-Order versions on request |

# Display & **Control** (HMI)

Many times, displays, control panels and computers reflect customer specific requirements and wishes. This in turn leads to the necessity to design so called Build-to-Order (BTO) versions. Hence, the components below only show a small variety of commonly used equipment and merely serve to give an idea on the different implementation possibilities in this area. Please do not hesitate to contact us if you have specific requirements - we are more than happy to advise you on additional possibilities or to detail a concept that suits your needs and requirements best.

## VISCA® Control Boards

| Product / Model | Description |
|---|---|
| VISCA® Control Board<br>VCB-XX<br> | Control your ExCam® without a PC by using the VISCA® Control Board.<br>Board functions: Zoom, Focus, Iris day/night to control one camera.<br>Further commands are available on request<br>VCB-01 = For one camera<br>VCB-02 = For two cameras (surcharge 100€)<br>VCB-03 = For three cameras (surcharge 150€)<br>VCB-04 = For four cameras (surcharge 200€)<br>Product group: C |
| | ...further control boards on request |

## Desktop CCTV Monitors

| Product / Model | Description |
|---|---|
| 19" Monitor<br> | 19" Monitor<br>LED desktop monitor with energy-efficient LED backlight technology, improved ergonomics and advanced connectivity options.<br>Resolution: 1280 x 1024<br>Product group: C |
| | ...further monitors on request |

## Desktop PC Monitors

| Product / Model | Description |
|---|---|
| 24" Monitor<br> | 24" Monitor<br>LED desktop monitor with energy-efficient LED backlight technology,<br>improved ergonomics and advanced connectivity options.<br>Resolution: 1920 x 1200<br>Product group: C |
| | ...further monitors on request |

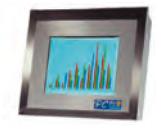
## Industrial CCTV Monitors

| Product / Model | Description |
|---|---|
| 19" Monitor<br> | ADM TFT Desktop Monitor IP67<br>Stainless Steel enclosure<br>Display sizes: 10.1˝, 15˝, 17˝, 19˝ and 24˝<br>Interfaces in IP67 Line / IP67 True Flat Line: 1x VGA, 1x CVBS,<br>1x Power Supply Unit in IP65 Line: 1x VGA, 1x DVI, 1x Power Supply<br>Power input: 12 VDC<br>Ambient Temperature Range: 0° C ~ +50° C<br>Product group: C |
| | ...further monitors on request |

## Industrial PC Monitors

| Product / Model | Description |
|---|---|
| 24" Monitor | 24" Industrial-LCD-Monitor<br>250cd/m² (Full HD), 1x VGA, 1x1x HDMI, 1x Display Port, 9-36 VDC-in, Projected capacitive Multi-Touch (USB), Aluminum-Front-Panel, black,<br>Dimensions: 382 x 600 x 49.4 mm<br>Product group: C |
| | further monitors on request. |

## Ex CCTV Monitors

| Product / Model | Description |
|---|---|
| 22" Monitor | 22" Monitor (for ATEX-Zone 2)<br>Resolution: 1680 x 1050, SOG-Glas with antireflection coating<br>Certifications: Class I/Div 2, Class II/Div 2, ATEX Zone 2.<br>Video Interfaces: NTSC on BNC Plug<br>Product group: C |
| 19" Monitor  | 19" Monitor (for ATEX-Zone 1)<br>Ex-Protection (gas): EEx eq [ib] IIC T4<br>Resolution: SXGA (1280x1024)<br>The device has an integrated CVBS Input (Ex-e).<br>Power supply: 110-230 VAC (integrated Ex-e terminal)<br>Inclusive Ex i-Remote Control to set up the Unit - connected to M12 Ex-i Plug on the button of the Unit.<br>Product group: C |
| | further monitors on request. |

## Ex PC Monitors

| Product / Model | Description |
|---|---|
| 19" Remote HMI | Remote HMI Zone 1, 21, 2, 22<br>TFT Color 48 cm (19"), 1280 x 1024 Pixel<br>TFT Display 350 cd/m²<br>100BaseFX<br>OS: Remote Firmware<br>Touch: Analog resistive<br>Keys: 8 F-Keys<br>Interfaces: 1 x RS232/422/485<br>Product group: C |
| KVM Extender | Digital KVM-Box for 19" Remote HMI<br>Remote HMI-Connector: 10BASE-T, 100BASE-TX Ethernet<br>Product group: C |
| Stainless Steel Enclosure | Stainless Steel Enclosure (SS304)<br>Fits for 19" Remote HMI<br>Front door<br>direct wall mounting<br>Product group: C |
| | further monitors on request. |

# SAMCONtrol®

**SAMCONtrol** is the world's first purely browser-based video management system. This means there is no need to install additional software or hardware other than a standard web browser in order to operate a video network. Expensive software updates or complex configurations are replaced by plug & play and simple drag & drop. Video signals can be displayed anywhere in the world, and on any device, whether a PC, Tablet or Smartphone.

**SAMCONtrol** supports all current IP transmission technologies from Ethernet, DSL, GPRS to UMTS or VPN, ISDN or RDT. This means that SAMCONtrol can not only be used in new video networks but it can also be integrated easily into existing systems.

**Video management systems** are at the heart of every video network. Unfortunately, most video management systems are still based on obsolete technology. In order to configure cameras or receive signals, software has to be installed on every workstation, or every PC that is used as an image source. This is not only time-consuming but expensive, since each installation usually incurs a royalty.

**SAMCONtrol** breaks new ground: video signals and camera configurations are stored on a video server. They are then accessed using a normal web browser. That means no additional software is required to create a video network. With SAMCONtrol videos can be retrieved using any device - whether a PC already connected to the PCS, an explosion-proof laptop in the field or by a service technician accessing the network from the other side of the country using a Tablet or even a Smartphone.

Best of all, the video network can also be configured on each terminal. A field technician can quickly and easily click on a particular display - for example to deal with an urgent matter. What this means is that video signals are 100% available anywhere.

### The Technology

Instead of managing cameras by using software that has to be installed on a PC, all processes are mapped in a conventional web browser. This means visualization of digital camera images can be done using open web technologies such as Java, Flash and HTML scripts. With the help of standardized components such as, for example, a zoom bar, site plans or pre-configured views, individual visualisation pages can be clicked together like an Internet Homepage. This removes the need for costly programming, software updates or releases from camera manufacturers. Only the standard system web browser of the system is required. SAMCONtrol is therefore not only compatible with the complete range of SAMCON cameras, but with all cameras from AXIS, market leader of network and surveillance cameras.

### The Network: Intranet and Internet security

With SAMCONtrol, a standard web browser such as Microsoft's Internet Explorer, Firefox or Chrome can be used as the client. The web browser is connected to the video server to which the cameras are also connected. An operator is therefore able to configure cameras or merge to a single display. In this way, cameras can be assigned to points on a geographical map, site plan or flow chart. The operator can save this view and will receive a unique link (URL). This link can then be accessed via the Intranet or Internet - always password-protected. Access to the network can also be restricted via the IP range or firewall. This ensures that video footage can only be retrieved by authorised persons. Because it is browser-based, the video management system offers unlimited multi-user access and can therefore also be used in international control centres which are responsible for multiple sites. The intuitive configuration tool allows users to quickly configure complete systems. Instead of a multiplicity of proprietary software, the complete system is only addressed via a video management system. This reduces training costs and the risk of operating errors.

### Views: split screen mode, site plans, flow charts or maps

The playback module is user-friendly and offers various modes for playback, navigation and display of video recordings. One can switch between different videos in the playlist or history. All images from the connected cameras can not only be shown in real time, but also controlled (PTZ). Standard monitoring functions such as video sequencing and display in split-screen modes are also available. Operators of the equipment are supported in their task by the fact that cameras can be located and displayed on a map or flow chart, or on a site plan. The map view (street plans or maps) offers a bird's-eye aerial view, which is especially suitable for installations spread over a wide area. Site plans allow cameras mounted on several floors or in different locations of a site to be found and displayed quickly. Operators in the control room no longer have to memorize camera designations to find a camera again, but can navigate easily through the installation site plan. The possibility of customizing the system allows operators to set priorities and adjust the system for the most effective control.

# SAMCONtrol® Software

**SAMCONtrol** is a browser based video management system which provides a common surface in order to configure, administer, and operate cameras.

**SAMCONtrol** does not require a video client which means that each browser allowing Adobe® Flash can be used as a video client. The reproduction module is designed in an operator friendly way and offers various modes in order to play, search, and display video recordings. Within the play list or history, it is possible to switch between different videos. It is not only possible to display all pictures of the connected cameras in real time but also to control them (PTZ).

Standard monitoring functions such as video sequencing and the display of different split screen modes are feasible. It supports the plant's operating personnel since the cameras can be integrated into and displayed on a map, a flow chart or a floor plan. The map view (road map or topographic map) allows a top view in aerial perspective which is particularly suitable for facilities which are wildly spread. Floor plans, on the other hand, allow an easy and quick access of cameras that are positioned on various levels or places of a facility. As a result, operators in a control center do not have to memorize camera names anymore in order to find the correct ones. Instead, they can comfortably navigate via the floor plan. Due to the high level of personalization, it is even possible for every operator to set his or her own priorities and to adapt the system to reflect their highest degree of control effectiveness.

| Product / Model | Description |
|---|---|
| SAMCONtrol 3.0<br>4Sources | Browser-based video-management-system<br>MJGEG and H.264 Support up to FullHD.<br>SAMCONtrol Server& Source Configurator for up to 4 sources.<br>SAMCONtrol FullHD Viewscriptbox including:<br>- Fieldview editor<br>- Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates<br>- Wall editor with NxN and RING Templates<br>- Operator Web archive<br>Product group: A |
| SAMCONtrol 3.0<br>10Sources | Browser-based video-management-system<br>MJGEG and H.264 Support up to FullHD.<br>SAMCONtrol Server& Source Configurator for up to 10 sources.<br>SAMCONtrol FullHD Viewscriptbox including:<br>- Fieldview editor<br>- Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates<br>- Wall editor with NxN and RING Templates<br>- Operator Web archive<br>Product group: A |
| SAMCONtrol 3.0<br>Enterprise | Browser-based video-management-system<br>MJGEG and H.264 Support up to FullHD.<br>SAMCONtrol Server& Source Configurator for unlimited number of sources.<br>SAMCONtrol FullHD Viewscriptbox including:<br>- Fieldview editor<br>- Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates<br>- Wall editor with NxN and RING Templates<br>- Operator Web archive<br>Product group: A |

# SAMCONtrol® Hardware

Hardware components often reflect customer requirements and desires. Often so-called Build-to-Order (BTO) Variants will be necessary.
The components listed below therefore represent only a small selection of commonly used devices. We are happy to advise you on the different options and/or assist you in designing your hardware concept!.

## SAMCONtrol Server

| Product / Model | Description |
|---|---|
| SAMCONtrol Server (Hardware)<br> | SAMCONtrol Server (Hardware)<br>TERRA SERVER 4330 E3 - 1220v2/3U/SA (BTO)<br>19" Rack Unit Chenbro RM31408B / 3HE / SRM<br>SAMCONtrol pre Installed.<br>Product group: C |

## SAMCONtrol Workstations

| Product / Model | Description |
|---|---|
| SAMCONtrol Workstation Desktop<br> | SAMCONtrol Workstation Desktop<br>Optimized for continuous operation: 24 hours a day, 7 days a week, 365 days a year. Equipped with special hardware that has been developed for continuous use, devices in this series help to minimize costly downtime.<br>CPU: Intel core i7<br>Ram DDR3 16GB / PC1333<br>DVD±RW/±R [Sata] and DVD Unit<br>Product group: C |
| SAMCONtrol Workstation 19"<br> | SAMCONtrol Workstation 19"<br>Optimized for continuous operation: 24 hours a day, 7 days a week, 365 days a year. Equipped with special hardware that has been developed for continuous use, devices in this series help to minimize costly downtime.<br>CPU: Intel core i7<br>Ram DDR3 16GB / PC1333<br>DVD±RW/±R [Sata] and DVD Burner without Software<br>Product group: C |
| SAMCONtrol PowerBox<br> | Spectra PowerBox 1280 Mini-PC<br>Highend-hybrid-cooled-mini-PC, optimized for continuous operation in full-power-mode<br>CPU: Intel core i7<br>8 GB DDR3-RAM, 120GB mSATA, 1x VGA, 1x DVI-D, 1x HDMI,2x GLAN, USB 2.0 and 3.0<br>Dimensions: 220 x 110 x 250mm<br>Product group: C |
| SAMCONtrol Panel PC IP65<br> | Spectra Panel IP65<br>Housing made of powder-coated aluminum, Protection Level: IP65<br>- 12" to 24" Display<br>- Fan less Version<br>- Resistive Touchscreen<br>- VESA-mount<br>- Individual Interfaces<br>- Microsoft® Windows® 7 Pro<br>Product group: C |
| SAMCONtrol Panel PC IP67<br> | ADM Panel PC IP67<br>Housing made of brushed stainless steel with TRUE FLAT front<br>- Display: 15", 17", 19" and 24"<br>- Protection Level: IP67<br>- Intel® Core ™ i3 Processor<br>- fan less version<br>- Power input: 12 VDC<br>- VESA mount (75 / 100)<br>Product group: C |

# Our Customers

more references at WWW.SAMCON.EU

# Our Certificates

ZERTIFIKAT

DEKRA

SAMCON
Prozessleittechnik GmbH

ISO 9001:2008

DEKRA Certification GmbH bescheinigt hiermit, dass das Unternehmen

SAMCON Prozessleittechnik GmbH

Zertifizierter Bereich:
Entwicklung, Herstellung und Vertrieb von Ex- Kamera- und Kommunikationssystemen sowie deren Zubehör und damit in Verbindung stehenden Dienstleistungen

Zertifizierter Standort:
D-35102 Lohra-Altenvers, Schillerstr. 17

Dieses Zertifikat ist gültig vom 10.03.2014 bis 09.03.2017 Zertifikats-Registrier-Nr.: 50314901

DEKRA Certification GmbH
Stuttgart, 10.03.2014

DEKRA

Zertifikat über die Anerkennung der Qualitätssicherung Produktion

(2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - Richtlinie 94/9/EG

(3) Nummer des Zertifikates: BVS 14 ATEX ZQS/E279

(4) Produktkategorie: Elektrische Betriebsmittel und Komponenten, Gerätegruppen I und II, Kategorien M2, 2G und 2D; Kamera- und Kommunikationssysteme

SAMCON

(5) Hersteller: SAMCON Prozessleittechnik GmbH

(6) Anschrift: Schillerstraße 17, 35102 Lohra-Altenvers

Herstellungsort: Schillerstraße 17, 35102 Lohra-Altenvers

(7) Die Zertifizierungsstelle der DEKRA EXAM GmbH, benannte Stelle Nr. 0158 gemäß Artikel 9 der Richtlinie 94/9/EG des Europäischen Parlaments und des Rates vom 23. März 1994, bescheinigt, dass der Hersteller ein Qualitätssicherungssystem für die Produktion unterhält, das dem Anhang IV und VII dieser Richtlinie genügt. In der fortgeschriebenen Anlage werden alle überwachten Geräte und Schutzsysteme mit den Zertifikatsnummern aufgelistet.

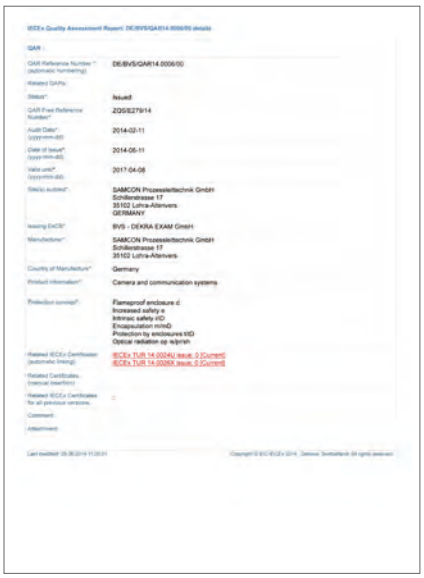
(8) Dieses Zertifikat basiert auf dem Auditbericht Nr. ZQS/E279/14, ausgestellt am 11.06.2014, und ist gültig bis 08.04.2017.
Das Zertifikat kann zurückgezogen werden, wenn der Hersteller die Anforderungen des Anhangs IV oder VII nicht mehr erfüllt.

Die Ergebnisse der Überwachungsaudits des Qualitätssicherungssystems werden Bestandteil dieses Zertifikates.

(9) Gemäß Artikel 10 (1) der Richtlinie 94/9/EG ist hinter der CE-Kennzeichnung die Kennnummer 0158 der DEKRA EXAM GmbH als der benannten Stelle anzugeben. Sie ist in der Produktionsüberwachungsphase tätig wird.

DEKRA EXAM GmbH
Bochum, den 11.06.2014

Zertifizierungsstelle Fachbereich


IECEx Quality Assessment Report: DE/BVS/QAR14.0006/00 dated

QAR :

| | |
|---|---|
| QAR Reference Number * (automatic numbering) | DE/BVS/QAR14.0006/00 |
| Related QARs | |
| Status* | Issued |
| QAR Free Reference Number* | ZQS/E279/14 |
| Audit Date* (yyyy-mm-dd) | 2014-02-11 |
| Date of Issue* (yyyy-mm-dd) | 2014-06-11 |
| Valid until* (yyyy-mm-dd) | 2017-04-08 |
| Site(s) audited* | SAMCON Prozessleittechnik GmbH<br>Schillerstrasse 17<br>35102 Lohra-Altenvers<br>GERMANY |
| Issuing ExCB* | BVS - DEKRA EXAM GmbH |
| Manufacturer* | SAMCON Prozessleittechnik GmbH<br>Schillerstrasse 17<br>35102 Lohra-Altenvers |
| Country of Manufacture* | Germany |
| Product information* | Camera and communication systems |
| Protection concept* | Flameproof enclosure d<br>Increased safety e<br>Intrinsic safety nD<br>Encapsulation mbnD<br>Protection by enclosures tD<br>Optical radiation op is/p/xh |
| Related IECEx Certificates (automatic linking) | IECEx TUR 14.0024U issue: 0 [Current]<br>IECEx TUR 14.0026X issue: 0 [Current] |
| Related Certificates (manual insertion) | |
| Related IECEx Certificates for all previous versions | - |
| Comment | |
| Attachment | |

Axis Partner Zertifikat

2007

Dieses Dokument zertifiziert

Samcon GmbH

als Authorized Partner

AXIS COMMUNICATIONS

AXIS COMMUNICATIONS

is pleased to recognize

Samcon Prozessleittechnik GmbH

as an

AXIS COMMUNICATIONS

Application Development Member

in the

Axis Application Development Partner Program

AXIS COMMUNICATIONS

is pleased to recognize

SAMCON Prozessleittechnik GmbH

AXIS COMMUNICATIONS TECHNOLOGY PARTNER

Axis Technology Partner

in the

Axis Technology Partner Program

ZERTIFIKAT

über erfolgreiche Projektabwicklung

CERTIFICATE
of successful project management

Der Auftraggeber / The Principal

Bayer CropScience

Industriestraße 300
50351 Hürth

erklärt hiermit, dass der Auftragnehmer / hereby declares that the contractor

SAMCON

Schillerstraße 5a
35102 Lohra -Altenvers

das im folgenden beschriebene Projekt / has implemented the project, described in the following,

Lieferung, Montage und Inbetriebnahme des explosionsgeschützten Kameraesystems für die Betriebe PSM3 und PSM4

Hardware: 60 stk. ExCam HD, 13 stk. ExConnection Rail – PoE, 2 stk. zentrale Serversteck, 4 stk. AXIS Monitor Server

Software: 4 stk. SAMCONtrol 2.1 Enterprise Lizenzen

Leistungen: Konzeptionelle Planung, Detailplanung, sf. Montage und Inbetriebnahme.

Ausführungszeitraum: Dezember 2011

Supply, installation and commissioning of the ExCCTV system for the chemical plants PSM3 and PSM4

Hardware: 60 pcs. ExCam HD, 13 pcs. ExConnection Rail - PoE, 2 pcs. central server racks, 4 pcs. AXIS Monitor Server

Software: 4 pcs. SAMCONtrol 2.1 Enterprise licenses

Services: Conceptual design, detailed engineering, electrical installation and commissioning.

Construction period: December 2011

zu unserer vollsten Zufriedenheit umgesetzt zu haben.
to our complete satisfaction.

Thomas Höfert
26. DEZ. 2012
Bayer CropScience

Dipl.-Ing. Thomas Höfert
Leitender Ingenieur
Bayer CropScience AG

Dipl.-Ing. Thomas Hoefert
Senior Engineer
Bayer CropScience AG

Knapsack, den / the 17.12.2012

ZERTIFIKAT

über erfolgreiche Projektabwicklung

CERTIFICATE
of successful project management

Der Auftraggeber / The Principal

HIM

Am grauen Stein
35614 Aßlar

erklärt hiermit, dass der Auftragnehmer / hereby declares that the contractor

SAMCON

Schillerstraße 5a
35102 Lohra -Altenvers

das im folgenden beschriebene Projekt / has implemented the project, described in the following,

zu unserer vollsten Zufriedenheit umgesetzt zu haben.
to our complete satisfaction.

HIM GmbH

Ralf Pompilun
HIM GmbH

Ralf Pompilun
HIM GmbH

Aßlar, den / the 17.12.2012

ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service GmbH
bescheinigt hiermit, dass das Unternehmen

Samcon Prozessleittechnik GmbH
Schillerstr. 5 a
35102 Lohra

Fachbetrieb nach WHG

für Anlagen zum Lagern, Abfüllen, Umschlagen und Herstellen, Behandeln, Verwenden mit wassergefährdenden Flüssigkeiten wt.

Dieses Zertifikat gilt für folgende Tätigkeiten

Einbauen
Instand halten und Instand setzen
Reinigen

Weitere Angaben zur Tätigkeit: Einbau, Wartung und Reinigung von Mess-, Analyse- und sicherheitstechnischen Geräten und Systemen in Lager- und Behandlungsanlagen.

Anlage zum Überwachungsvertrag Nr.: 1161170U
Das Zertifikat ist gültig bis 14.02.2013

TÜV SÜD Industrie Service GmbH
Region Baden-Württemberg
Abteilung Chemie und Druckanlagen
Dudenstr. 28 · 68167 Mannheim

Mannheim, den 14.02.2011
Sachverständigengruppenleitung nach §27 VAwS
Der örtliche Leiter
Dr. Bernd Haenrar

TÜV

more Certificates at WWW.SAMCON.EU

# Our Type Examinations

DEKRA

EG-Baumusterprüfbescheinigung

- Richtlinie 94/9/EG -

Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen

BVS 08 ATEX E 073 X

(4) Gerät: Kameraystem Typ ExCam360°

(5) Hersteller: Samcon Prozessleittechnik GmbH

(6) Anschrift: 35102 Lohra-Altenvers

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

II 2G Ex de [op is] IIB T5

DEKRA EXAM GmbH

Bochum, den 27. Juni 2008

EG-Baumusterprüfbescheinigung

- Richtlinie 94/9/EG -

Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen

BVS 07 ATEX E 183 U

(4) Komponente: DECT Interface Typ ExNF

(5) Hersteller: Samcon Prozessleittechnik GmbH

(6) Anschrift: 35102 Lohra-Altenvers

(12) Die Kennzeichnung der Komponente muss die folgenden Angaben enthalten:

II (2) G Ex IIB

DEKRA EXAM GmbH

Bochum, den 31. März 2008

EG-Baumusterprüfbescheinigung

TÜV 09 ATEX 7697 X

(4) Gerät: ExCam miniZoom Typ T03-VA... und Typ T03-Al...

(5) Hersteller: SAMCON Prozessleittechnik GmbH

(6) Anschrift: Schillerstraße 5a; 35102 Lohra-Altenvers

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

II 2 G Ex d IIC T6 oder Ex d IIB T6

II 2 D Ex tb A21 IP67 T80°C

TÜV CERT-Zertifizierungsstelle für Explosionsschutz

Köln, den 23.04.2009

TÜVRheinland®

Genau. Richtig.

EG-Baumusterprüfbescheinigung

TÜV 10 ATEX 7969 X

(4) Gerät: ExConnection Rail Typ T04

(5) Hersteller: SAMCON Prozessleittechnik GmbH

(6) Anschrift: Schillerstraße 5a; 35102 Lohra-Altenvers

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

II 2 G Ex d e mb [ia/ib] [op is] IIC T6 Varianten siehe Beschreibung

II 2 D Ex tD A21 [ia/ib] [op is] IP 66 T80°C Varianten siehe Beschreibung

TÜV Rheinland - Zertifizierungsstelle für Explosionsschutz

Köln, 10. Dezember 2011

TÜVRheinland®

Genau. Richtig.

EG - Konformitätserklärung

EC - Declaration of Conformity / CE - Déclaration de Conformité

SAMCON

Schillerstraße 17

35102 Lohra-Altenvers

ConnectionRailBTO

(SN:PT050061)

Dipl.-Ing. Steffen Seibert

Geschäftsführer

Lohra-Altenvers, den / the / le 13.01.2015

EC TYPE-EXAMINATION CERTIFICATE

TÜV 14 ATEX 7473 U

(4) Equipment: Ex d enclosure series T07 VA1.x VA2.x

(5) Manufacturer: SAMCON Prozessleittechnik GmbH

(6) Address: Schillerstraße 17, D-35102 Lohra-Altenvers

(12) The marking of the equipment shall include the following:

I M2 Ex d I Mb

II 2 G Ex d IIC Gb

II 2 D Ex tb IIIC Db

TÜV Rheinland ExNB for explosion protected equipment

Cologne, 2014-07-16

DAkkS

TÜVRheinland®

Precisely Right.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC Certification Scheme for Explosive Atmospheres

TÜVRheinland

EC TYPE-EXAMINATION CERTIFICATE

TÜV 14 ATEX 7539 X

(4) Equipment: ExCam Series T08

(5) Manufacturer: SAMCON Prozessleittechnik GmbH

(6) Address: Schillerstraße 17, D-35102 Lohra-Altenvers

(12) The marking of the equipment shall include the following:

I M2 Ex d I Mb

II 2 G Ex d IIC T6 Gb or Ex d IIC T5 Gb

II 2 G Ex d IIB T6 Gb or Ex d IIB T5 Gb

II 2 D Ex tb IIIC T80 °C Db IP68 or II 2 D Ex tb IIIC T95 °C Db IP68

Cologne, 2014-07-29

DAkkS

TÜVRheinland®

Precisely Right.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC Certification Scheme for Explosive Atmospheres

2014-07-29

TÜVRheinland

more Type Examinations at WWW.SAMCON.EU

# Our Team

Contact
Info
at
WWW.SAMCON.EU

# Notes

Rev. Date: 29.01.2015

SAMCON
Prozessleittechnik GmbH

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